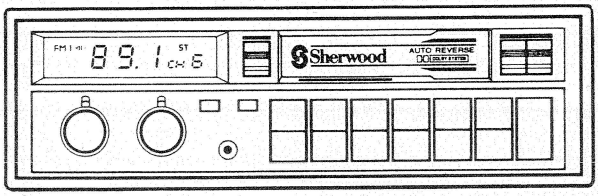
SERVICE MANUAL



XR-1502

MW/FM Cassette Receiver

Sherwood

Specification

AUDIO SECTION

RMS Output/CH Into 4 ohm	
50Hz～20KHz, 0.5% THD	12W
1KHz, 10% THD	20W
Frequency Reponse	100Hz～20KHz
Tone Control	
Bass(100Hz)	±10dB
Treble(10KHz)	±10dB
Preamp Output, FM 30% MOD	400mV

TUNER SECTION

Frequency Range	
MW	531～1602KHz
FM	87.5～108.0MHz
FM Usable Sensitivity, Mono	6μV(26.8dBF)
FM Quieting Sensitivity, Stereo	60μV(45.8dBF)
SK Sensitivity	25dB
FM S/N Ratio	
Mono	60dB
Stereo	50dB
FM Stereo seperation	30dB
FM Channel Selectivity	40dB
FM Capture Ratio	4dB
AM Sensitivity, 20dB S/N	50μV (45.8dBf)
AM S/N RATIO	50dB
AM Frequency Response, -6dB	30Hz～2.5KHz

CASSETTE SECTION

Frequency Response	
Metal	30Hz～16KHz
Normal	30Hz～13KHz
Wow & Flutter(WRMS)	0.35%
S/N Ratio	
W/CCIR ARM	57dB
UNWTD	48dB

GENERAL

Operating Voltage	DC14.4V(11V～16V) allowable) Negative GND
Speaker Impedance	4 ohms
Chassis Dimensions	178x50x149mm
WxHxD	$\left(7''\times 2''\times 5\frac{55''}{64}\right)$
Panel Dimension	189×58×15.5mm
WxHxD	$\left(7\frac{29''}{64}\times 2\frac{9''}{64}\times\frac{39''}{64}\right)$
Net weight	2.2Kg(4.8lbs)
FUSE	
Main	5A Normal Blow
Back up	1A Normal Blow

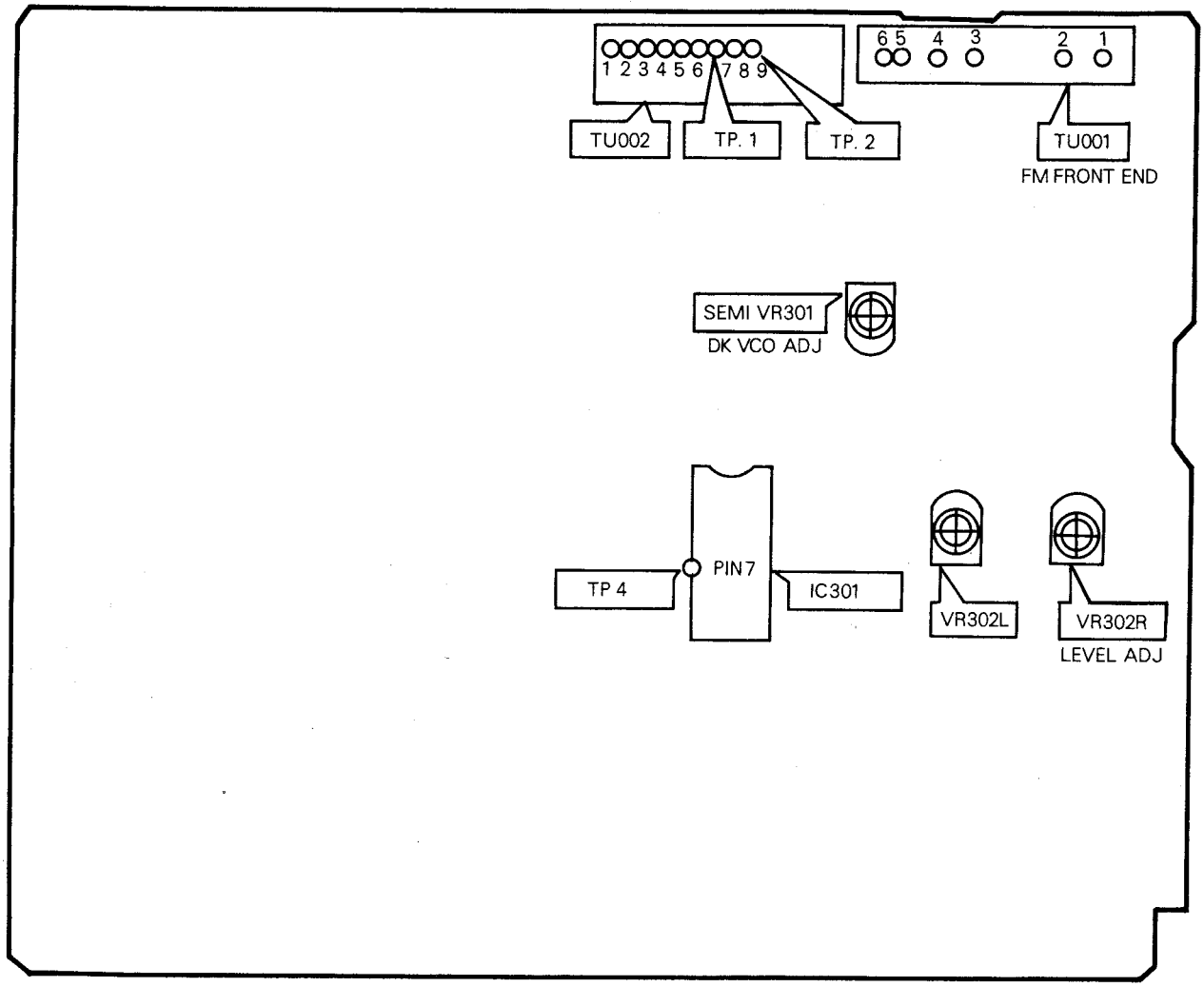
Note: Design and specifications subject to change without for improvements.

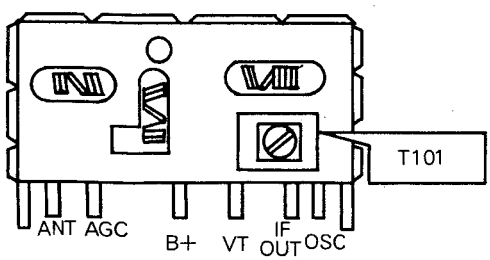
Alignment Instructions

ALIGNMENT CONDITIONS

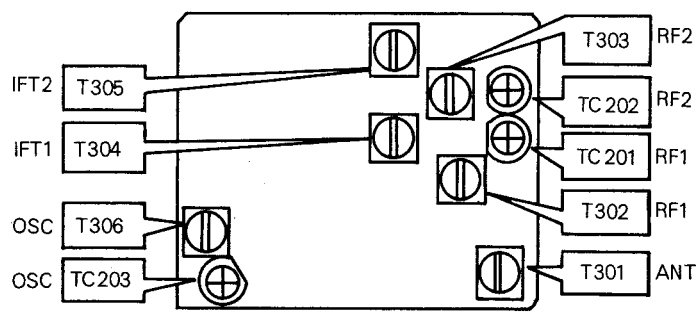
- Power Supply Voltage: DC 14.4V
- Output Impedance: 4Ω
- Output Power: 1W
- Balance Control: Center
- Fader Control: Center
- Bass Control: Center
- Treble Control: Center

ADJUSTMENT POINTS MAIN BOARD PCB



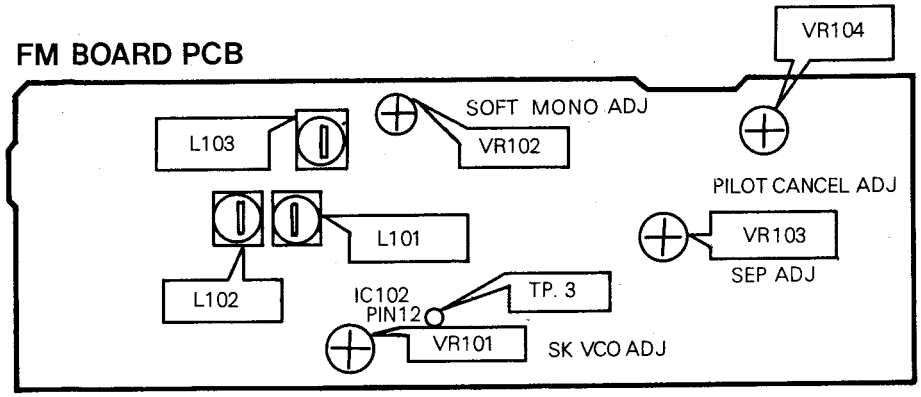


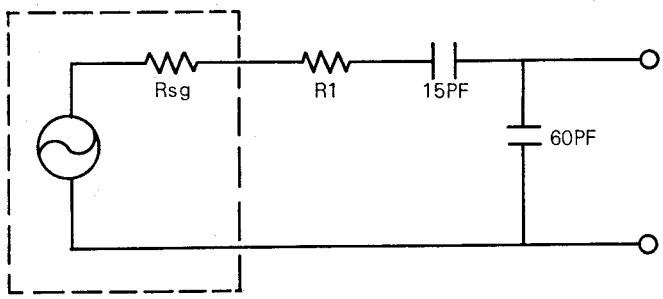
FM FRONT END POINTS(TUOO 1)



AM TUNER POINTS(TU002)

FM BOARD PCB





R1 = 80 − Rsg
Rsg: Internal Resistance of Signal Generator Used.

AM DUMMY ANTENNA

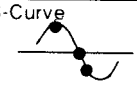
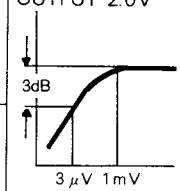
Note: Both AM and FM Frontends are pre-adjusted at factory. Additional adjustment will be required only when someparts are changed or replaced.

RADIO SECTION

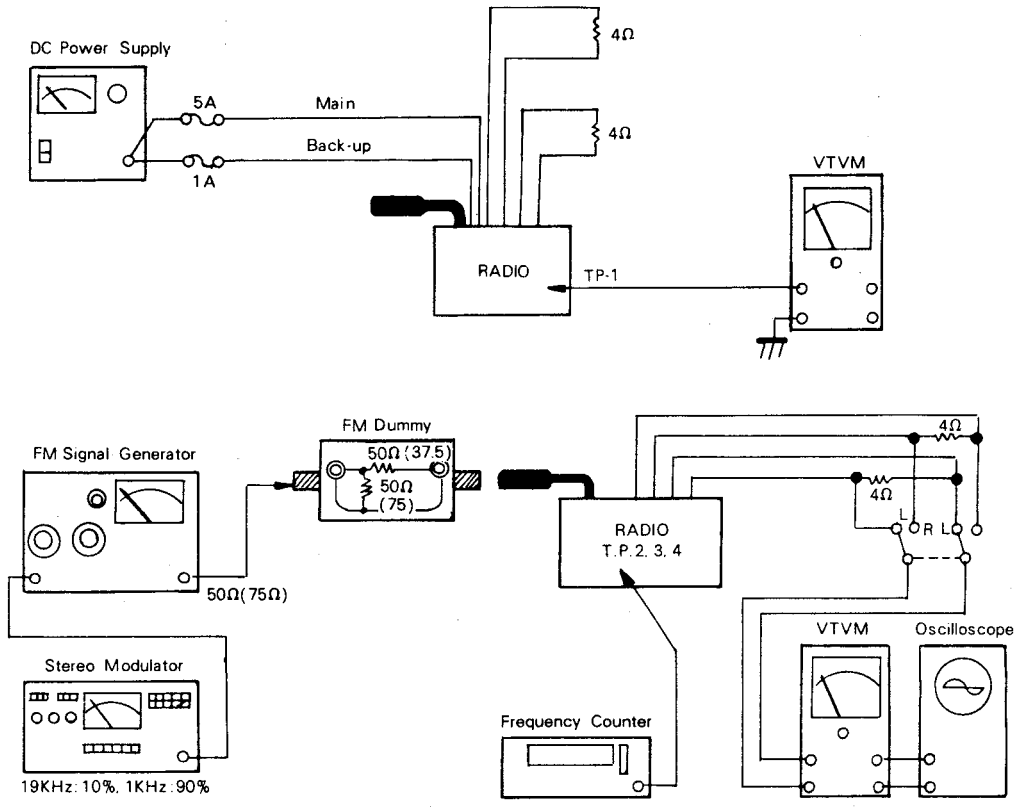
1. AM ALIGNMENT

Step	Adjusting Circuit	Connections		Frequency	Position of tuning Scale	Adjust-ment	VTVM and Scope
		Input	Output				
1	OSC COIL	S.S.G	Connect DC Multimeter to TP.1	531KHz	LOW End	T306	1.3V
2	OSC Trimmer	S.S.G	Connect DC Multimeter to TP.1	1602KHz	High End	TC203	8.2V
3	ANT. RF Coil	Connect AM IF Sweep to ANT.Terminals	Connect VTVM to Speaker Terminal	603KHz	603KHz	T301 T302 T303	Maximum reading on VTVM
4	Tracking	Connect AM IF Sweep to ANT.Terminals	Connect VTVM to Speaker Terminal	1404KHz	1404KHz	TC201 TC202	Maximum reading on VTVM
5	IF	Connect AM IF GENE SCOPE OUT	Connect AM IF GENE SCOPE IN	459KHz	603KHz	T304 T305	Maximum reading on VTVM

2. FM ALIGNMENT

Step	Adjusting Circuit	Connections		Frequency	Position of tuning Scale	Adjust-ment	VTVM and SCOPE
		Input	Output				
1	IF Detector	Connect Sweep Marker Generator Output to FM ANT Terminal.	Connect SMG Input to Speaker Output	10.7MHz (Unmod.)	Near MAX. Under no Signal	T101 L101	S-Curve 
2	Sensiti-vity	Connect FM Signal Generator to ANT. Terminal(Used ANT Dummy)	Connect VTVM Input to Speaker Output terminals	98.0MHz 1KHz,100% Mod. 1mV	98.0MHz	1W(2V) (Volume Adj.)	OUTPUT 2.0V  INPUT
3	Sensiti-vity	Connect FM Signal Generator to ANT. Terminal(Used ANT Dummy)	Connect VTVM Input to Speaker terminals	98.0MHz 1KHz,100% Mod.1mV	98.0MHz	T101	
4	Pilot cancellation	Connect FM signal Generator to ANT Terminal (Used ANT Dummy)	Connect Frequency counter to the No 13 of pin IC105	98.0MHz 1KHz, 100% Mod. 1mV	98.0MHz	VR104	Adjust for Minimum pilot
5	Separa-tion	Connect FM Stereo Signal Generator to ANT Receptacle	Connect VTVM & Scope to Speaker Terminal	98.0MHz	98.0MHz	VR103	Adjust for Maxi-mum Separation
6	ARI SK	No Signal	Connect Frequency Counter to the T.P3 (R125-3.3K ohm)	–	FM BAND SDK:ON	VR101	Reading:57KHz ± 50Hz
7	ARI DK	No Signal	Connect Frequency Counter to the T.P4 (PIN 7 of IC302)	–	FM BAND SDK:ON	VR302	Reading:125Hz
8	SDK Lamp Sensiti-vity	Connect FM Signal Generator to ANT. Terminal(Used ANT Dummy)	Connect VTVM Input to Speaker terminals	98.0MHz 1KHz,100% Mod.5 μV	98.0MHz SDK:ON	L103	LCD Display SDK letter:ON

9	Soft Mono	Connect FM singal Generator to ANT Terminal(Used ANT Dummy)	Connect VTVM Input to Speaker terminal	98.0MHz 1KHz, 100% Mod	98.0MHz Mono:off	VR102	LCD Display ST letter:off



TAPE SECTION

1. Tape deck mechanism cleaning

Clean playback head, Capstan shaft and pinch roller before head azimuth

2. Head azimuth adjustment

Playback a test tape(MTT-114, 10KHz) and adjust the azimuth adjustment screw for maximum output. Next, turn the azimuth alignment screw until the output power of forward and reverse(L ch, R ch) both are near level.

3. Lubricate

Lubricate one or two drops of machine oil to rotating point or lubricate grease to sliding point.
Lubricate the respective parted below once every 1,000 hours or once a year under normal conditions of use.
Avoid oiling them excessively, or rotation may become irregular because of oil splashers.

Lubricate with one or two drops of oil. If oil or dirt adhere to rubber parts such as the belt or pinch roller, or drive parts such as the pulley, idler and capstan clean thoroughly with a Q-tip or gauze dipped in alcohol.

TYPES		
Rotating Parts	Idler Gear Shaft Tension Pulley	Pan Motor Oil (10W—40) or equivalent
Slid Parts		Hitazol(MO-138) or equivalant

Parts List of P.C Board

MAIN BOARD 4002603900

Ref.No.	Parts No.	Description	Position
• ICS			
IC301	2168417110	ARI SYSTEM LA 2211	4C
IC302	2168011131	DOLBY LA 12135	4D
IC303	2168017105	PB EQ AMP LA 3161	5C
IC304	2168022105	AMS BA 336	5B
IC305	2168022101	BA 634	4E
IC401	2168007123	FLIP FLOP TC 9130	5D
IC501L/R	2168011130	POWER HA 13119	1B/C
• TRANSISTORS			
Q301	2008622107	2SC 1740	5A
Q302	2008622100	2SC 2021	5A
Q303	2008622107	2SC 1740	3A
Q304	2028406121	KTD 1406Y	2C
Q305	2008222106	2SA 933	3B
Q306	2008622107	2SC 1740	3B
Q307	2008222102	2SB 822	3C
Q308	2008622107	2SC 1740	3C
Q309	20086222106	2SA933	3C
Q310	2008622107	2SC1740	3B
Q311L/R	2008622107	2SC 1740	3B
Q312,Q313	2008622107	2SC 1740	4E
Q314L/R	2008622107	2SC 1740	5C
Q315	20086222106	2SA 933	5B
Q316	2008622103	2SD 1055	5B
Q317	2008622107	2SC 1740	3E
Q318	2008222102	2SB 822	3D
Q319,Q320		NOT USED	
Q321	2008222102	2SB 822	3D
Q322	2208622108	DTC 4475	5B
Q401	2008622103	2SD 1055	3C
Q402	2008622107	2SC 1740	4D
Q403,Q404	2008622107	2SC 1740	5E
Q405	2008622107	2SC 1740	4E
Q501	2008610101	2SD 1330	2A
Q502	2008610101	2SD 1330	1D
Q503L/R	2008622107	2SC 1740	2E/3E
Q504L/R	2008622107	2SC 1740	1D/3E
Q505L/R	2018007100	FET P-CH 2SJ107	2D/3D
Q506L/R	2018007100	FET9	2D/3D
Q507L/R	2008622107	2SC 1740	3E
Q508L/R	2008622107	2SC 1740	2B/C
Q509	2008622107	2SC 1740	2B
• DIODES			
D301	2058322101	1N 4148N	4A
D302	2058599122	ZENER DZ-11BM	2D
D303,D304	2058322101	1N 4148N	3C
D305	2058322101	1N 4148	3C
D306	2058322101	1N 4148	3B
D307	2058322101	1N 4148	3C
D308L/R	2058322101	1N 4148	3B
D309L/R	2058322101	1N 4148	2B/2B
D310	2059599107	ZENER DZ-9.1BM	5B
D311	2058106101	1N 4003	5D
D312	2058322101	1N 4148	2D
D313	2058322101	1N 4148	2D
D314	2058599122	ZENER DZ-113M	2C
D315		NOT USED	
D316	2058322101	1N 4148	3D
D317	2058322101	1N 4148	4B
D401	2018599105	ZENER DZ-6.8M	3C
D402	2058322101	1N 4148	4D
D403	2058322101	1N 4148	4D
D404		NOT USED	
D405,D406	2058322101	1N 4148	3C
D501	2058106101	1N 4003	1E
D502	2058599122	ZENER DZ-11BM	1A
D503	2058106101	1N 4003	1C
• COIL			
L301	2648601510	INDUCTOR 4.7μH	5A
• SEMI-FIXED RESISTORS			
SEMI 301	3248050225	5KB	4B
SEMI 302L/R	3248010325	10KB	5C
• RESISTORS			
R301	3069680970	68 ohm 1/8W	

Ref.No.	Parts No.	Description	Position
R302	3069680970	68 ohm 1/8W	
R303	3069102970	1K ohm 1/8W	
R304	3069104970	100K ohm 1/8W	
R305	3069103970	10K ohm 1/8W	
R306	3069472970	47K ohm 1/8W	
R307	3069472970	4.7K ohm 1/8W	
R308	3069104970	100K ohm 1/8W	
R309	3069224970	220K ohm 1/8W	
R310		NOT USED	
R311	3069473970	4.7K ohm 1/8W	
R312	3069103970	10K ohm 1/8W	
R313	3069753970	75K ohm 1/8W	
R314	3069330970	33 ohm 1/8W	
R315	3069103970	10K ohm 1/8W	
R316	3069102970	1K ohm 1/8W	
R317	3069822970	8.2K ohm 1/8W	
R318	3069102970	1K ohm 1/8W	
R319	3069331970	330 ohm 1/8W	
R320	3069229970	2.2K ohm 1/8W	
R321	3069101970	100 ohm 1/8W	
R322	3069473970	47K ohm 1/8W	
R333	3069472970	4.7K ohm 1/8W	
R334	3069472970	4.7K ohm 1/8W	
R335		NOT USED	
R336	3069103970	10K ohm 1/8W	
R337	3069473970	47K ohm 1/8W	
R338	3069222970	2.2K ohm 1/8W	
R339	3069153970	15K ohm 1/8W	
R340	3069103970	10K ohm 1/8W	
R341	3069473970	47K ohm 1/8W	
R342	3069152970	1.5K ohm 1/8W	
R343	3069472970	4.7K ohm 1/8W	
R344	3069152970	1.5K ohm 1/8W	
R345	3069472970	4.7K ohm 1/8W	
R346	3069564970	560K ohm 1/8W	
R347	3069102970	1K ohm 1/8W	
R348	3069682970	6.8K ohm 1/8W	
R349	3069102970	1K ohm 1/8W	
R350	3069105970	1M ohm 1/8W	
R351	3069474970	470K ohm 1/8W	
R352	3069105970	1M ohm 1/8W	
R353	3069223970	22K ohm 1/8W	
R354L/R	3069103970	10K ohm 1/8W	
R355L/R	3069273970	27K ohm 1/8W	
R356L/R	3069103970	10K ohm 1/8W	
R357L/R	3069103970	10K ohm 1/8W	
R358L/R	3069392970	3.9K ohm 1/8W	
R359L/R	3069332970	3.3K ohm 1/8W	
R360L/R	3069104970	100K ohm 1/8W	
R361L/R	3069684970	6.8K ohm 1/8W	
R362L/R	3069101970	100 ohm 1/8W	
R363L/R	3069104970	100K ohm 1/8W	
R364L/R	3069104970	100K ohm 1/8W	
R365	3069103970	10K ohm 1/8W	
R367	3069104970	100K ohm 1/8W	
R367	3069101970	100 ohm 1/8W	
R368	3069101970	100 ohm 1/8W	
R369		NOT USED	
R370	3069221970	220 ohm 1/8W	
R371	3069272970	2.7K ohm 1/8W	
R372	3059474970	470K ohm 1/8W	
R373	3069334970	330K ohm 1/8W	
R374	3069472970	4.7K ohm 1/8W	
R375	3069103970	10K ohm 1/8W	
R376	3069683970	68 Kohm 1/8W	
R377	3069683970	68K ohm 1/8W	
R378	3069101970	100 ohm 1/8W	
R379		NOT USED	
R380	3069682970	6.8K ohm 1/8W	
R381	3069103970	10K ohm 1/8W	
R382	3069102970	1K ohm 1/8W	
R383	3069470970	47 ohm 1/8W	
R384L/R	3069102970	1K ohm 1/8W	
R385L/R	3069103970	10K ohm 1/8W	
R386L/R	3069103970	10K ohm 1/8W	
R387	3069183970	18K ohm 1/8W	
R388	3069223970	22K ohm 1/8W	
R389	3069223970	22K ohm 1/8W	
R390	3069103970	10K ohm 1/8W	

Ref.No.	Parts No.	Description	Position
R391	3069103970	10K ohm 1/8W	
R392	3069331970	330 ohm 1/8W	
R393	3069103970	10K ohm 1/8W	
R394	3069473970	47K ohm 1/8W	
R395	3069221970	220 ohm 1/8W	
R396	3069101970	100 ohm 1/8W	
R397	3069102970	14 ohm 1/8W	
R398	3069102970	1K ohm 1/8W	
R399	3069472970	4.7K ohm 1/8W	
R400	3069103970	10K ohm 1/8W	
R401	3069103970	10K ohm 1/8W	
R402	3069512970	5.1K ohm 1/8W	
R403	3069102970	1K ohm 1/8W	
R404	3069104970	100K ohm 1/8W	
R405	3069104970	100K ohm 1/8W	
R406	3069104970	100K ohm 1/8W	
R407	3069104970	100K ohm 1/8W	
R408	3069123970	12K ohm 1/8W	
R409	3069822970	8.2K ohm 1/8W	
R410	3069103970	10K ohm 1/8W	
R411	3069103970	10K ohm 1/8W	
R412	3069103970	10K ohm 1/8W	
R413	3069221970	220 ohm 1/8W	
R414	3069221970	220 ohm 1/8W	
R415	3069221970	220 ohm 1/8W	
R416	3069221970	220 ohm 1/8W	
R417	3069104970	100K ohm 1/8W	
R501	3069222970	2.2K ohm 1/8W	
R502	3069472970	4.7K ohm 1/8W	
R503	3069472970	4.7K ohm 1/8W	
R504	3069103970	10K ohm 1/8W	
R505L/R	3069334970	330K ohm 1/8W	
R506L/R	3069222970	2.2K ohm 1/8W	
R507L,R	3069154970	150K ohm 1/8W	
R508L/R	3069821970	820 ohm 1/8W	
R509L/R	3069103970	1K ohm 1/8W	
R510	3069101970	100 ohm 1/8W	
R511L/R	3069682970	6.8K ohm 1/8W	
R512L/R	3069222970	2.2K ohm 1/8W	
R513L/R	3069122970	1.2K ohm 1/8W	
R514L/R	3069821970	830 ohm 1/8W	
R515L/R	3069102970	1K ohm 1/8W	
R516L/R	3069104970	100K ohm 1/8W	
R517L/R	3069471970	470K ohm 1/8W	
R518L/R	3069222970	2.2K ohm 1/8W	
R519L/R	3069102970	1K ohm 1/8W	
R520L/R	3069331970	330 ohm 1/8W	
R521L/R	3069103970	10K ohm 1/8W	
R522L/R	3069103970	10K ohm 1/8W	
R523L/R	3069103970	10K ohm 1/8W	
R524L/R	3069272970	2.7K ohm 1/8W	
R525L/R	3069479970	4.7 ohm 1/8W	
R526L/R	3069472970	4.7K ohm 1/8W	
R527L/R	3069472970	4.7K ohm 1/8W	
R528L/R	3069152970	15K ohm 1/8W	
R529L/R	3069102970	1K ohm 1/8W	
R530L/R	3069103870	10K ohm 1/8W	
R531	3069103970	10K ohm 1/8W	
R532	3069473970	47K ohm 1/8W	
R533L/R	3069339970	3.3 ohm 1/8W	
R534L/R	3069339970	3.3 ohm 1/8W	
R535L/R	3069103970	10K ohm 1/8W	
R536L/R	3069102970	1K ohm 1/8W	
R537L/R	3069123970	120K ohm 1/8W	
R538	3069101970	1K ohm 1/8W	
R539L/R	3069474970	470K ohm 1/8W	
R540L/R	3069222970	2.24 ohm 1/8W	
R541L/R	3069154970	150K ohm 1/8W	
R542L/R	3069151970	150 ohm 1/8W	
R543L/R	3069123970	12K ohm 1/8W	
R544L/R	3069103970	1K ohm 1/8W	
R545	3069103970	1K ohm 1/8W	
R546L/R	3069103970	1K ohm 1/8W	
• CAPACITORS			
C301	3509221130	Ceramic 220P	
C302	3409210121	Elect 100μF/19V	
C303	3409210971	Elect 1μF/50V	
C304	3509182530	Ceramic 0.0018μF	

Ref.No.	Parts No.	Description	Position
C305	3409210971	Elect 1μF/50V	
C360	3519223520	Ceramic 0.022μF	
C307	3519223520	Ceramic 0.022μF	
C308	3479247021	Elect 47μF/10V	
C309	3409233121	Elect 330μF/10V	
C310	3409247021	Elect 470μF/10V	
C311	3409222121	Elect 220μF/10V	
C312	3509103970	Ceramic 0.01μF	
C313	3409247971	Elect 4.7μF/50V	
C314	3409247971	Elect 4.7μF/50V	
C315	3409222032	Elect 22μF/16V	
C316	3409247021	Elect 47μF/10V	
C317	3409122101	Elect 220μF 4V	
C318	3409247021	Elect 47μF/10V	
C319	3069101130	Ceramic 100P	
C320L/R	3409247972	Elect 4.7μF/50V	
C321L/R	3409247971	Elect 4.7μF/50V	
C323	3409222871	Elect 0.22μF/50V	
C324L/R	3409210871	Elect 0.1μF/50V	
C325	3409247041	Electr47μF/25V	
C326L/R	3609223120	Mylar 0.022μF	
C327	3409247021	Elect 47μF/10V	
C328L/R	3679183120	Mylar 0.018μF	
C329L/R	3679223120	Mylar 0.022μF	
C330L/R	3409147021	Elect 47μF/10V	
C331L/R	3409110970	Elect 1μF/50V	
C332L/R	3679102120	Mylar 0.001μF	
C333	3409247972	Elect 4.7μF/50V	
C334	3409222972	Elect 2.2μF 50V	
C335	3409210872	Elect 0.1μF/50V	
C336	3409268872	Elect 0.68μF/50V	
C337	3409210972	Elect 1μF/50V	
C339L/R	3409147931	Elect 4.7μF/16V	
C340	3409122871	Elect 0.22μF/50V	
C341	3409122871	Elect 0.22μF/50V	
C342	3409247032	Elect 47μF/16V	
C343	3409147021	Elect 47μF/10V	
C344	3409210032	Elect 10μF/16V	
C345	3409147931	Elect 4.7μF/10V	
C346	3519223520	Ceramic 0.022μF	
C347	3409147021	Elect 47μF/10V	
C348	3409147021	Elect 47μF/10V	
C349	3409137021	Elect 47μF/10V	
C350	3519223520	Ceramic 0.022μF	
C351	3409122011	Elect2.2μF/6.3V	
C401	3519223520	Ceramic 0.022μF	
C402	3519223520	Ceramic μF	
C406	3519223520	CeramicμF	
C407	3510223520	0.022μF	
C408	3409210121	Elect 100μF/10V	
C409	3409110971	Elect 1μF/50V	
C501	3409247971	Elect 4.7μF/50V	
C502L	3409110971	Elect 1μF/50V	
C502R	3409210971	Elect 1μF/50V	
C503L/R	3579470130	Ceramic 47P	
C504L/R	3409110971	Elect 1μF/50V	
C505	3409247021	Elect 47μF/10V	
C506L/R	3679562120	Mylar 0.0056μ	
C507L/R	3679393120	Mylar 0.039μF	
C508L	3609333120	Mylar 0.033μF	
C508	3679333120	Mylar 0.033μF	
C509L/R	3409233871	Elect 0.33μ/50V	
C510L/R	3479210971	Elect 1μF/50V	
C511L/R	3579470130	Ceramic 47P	
C512L	3479210971	Elect 1μF/50V	
C512R	3409110971	Elect 1μF/50V	
C513L/R	3579681230	Ceramic 680P	
C514L	3409222871	Elect 0.22μF/50V	
C514R	3409122871	Elect 0.22μF/50V	
C515L/R	3409210032	Elect 10μF/16V	
C516L/R	3579102530	Ceramic 1000P	
C517L/R	3479210971	Elect 1μF/50V	
C518L	3509102530	Ceramic 1000P	
C518R	3579102530	Ceramic 1000P	
C519L	3409201021	Elect 100μF/10V	
C519R	3479210121	Elect 100μF/10V	
C520L/R	3519223520	Ceramic 0.022μF	
C521L/R	3479247021	Elect 47μF/10V	

Ref.No.	Parts No.	Description	Position
C521R	3409247021	Elect 47μF/10V	
C522L/R	3409210121	Elect 100μF/10V	
C523L/R	3609104120	Mylar 0.1μ	
C524L/R	3479210121	Elect 100μF/10V	
C525L/R	3069104120	Mylar 0.1μF/	
C526L/R	3409210231	Elect 1000μF/10V	
C527L/R	3479210121	Elect 100μF/10V	
C528L	3409110971	Elect 1μF/50V	
C528R	3409210971	Elect 1μF/50V	
C529L/R	3509470130	Ceramic 47P	
C530L/R	3409110971	Elect 1μF/50V	
C531	3409222121	Elect 220μF/10V	
C532	3409222131	Elect 22μF/16V	
C533L/R	3409210231	Elect 1000μ/16V	
C534L/R	3409210061	Elect 10μF/35V	
C535L/R	3479210971	Elect 1μF/50V	

FM BOARD 4002602800

Ref.No.	Parts No.	Description	Position
• ICS			
IC101	2168417101	IF DET LA1140	1A
IC102	2168417109	Traffic Decoder LA2205	2A
IC103	2168417102	Noise Canceller LA 2110	2A
IC104	3099330180	R/C Network	3A
IC105	2168417106	MPX LA 3430	3A
• TSANSISTORS			
Q101,Q102	2008406104	KTC 3195	1A
Q103	2008622107	2SC 1740	1A
• DIODES			
D101,D102	2058322101	1N 4148M	1A
D103	2058322101	1N 4148M	2A
• COILS			
L101	2838501060	FM IFT2	1A
L102	2838501050	FM IFT1	1A
L103	2168001070	Coil SK	1A
L104L/R	2648601630	Inductor 32mH	3A
• FILTERS			
CF101	3908011132	Ceramic SFE 10.7MJ	1A
CF102	3908011131	Ceramic SFE 10.7MJ	1A
• RESONATOR			
CX101	3938001009	Resonator CSB 456 F11	3A
• SEMI-FIXED RESISTORS			
Semi101	3248310425	100KB	2A
Semi102	3248350225	5KB	2A
Semi103	3248310325	10KB	3A
Semi104	3248350325	50KB	3A
• RESISTORS			
R101	3069101970	100 ohm	
R102,R105	3069471970	470 ohm	
R103	3069470970	47 ohm	
R104,R107	3069331970	330 ohm	
R106	3069332970	3.3K ohm	
R108	3069471970	470 ohm	
R109,R112	3069223970	22K ohm	
R110	3069331970	330 ohm	
R111	3069104970	100K ohm	
R113	3069473970	47K ohm	
R114	3069223970	22K ohm	
R115	3069563970	56K ohm	
R116	3069104970	100K ohm	
R117	3069224970	220K ohm	
R118	3069153970	15K ohm	
R119	3069272970	2.7K ohm	
R120	3069104970	100K ohm	
R121	3069273970	27 K ohm	
R122	3609330970	33 ohm	
R123	3069100970	10 ohm	

Ref.No.	Parts No.	Description	Position
R124,R125	3069102970	1K ohm	
R126	3069103970	10K ohm	
R127,R128	3069332970	3.3K ohm	
R129	3069221970	220 ohm	
R130	3069332970	3.3K ohm	
R131,R133	3069562970	5.6K ohm	
R132	3069470970	47 ohm	
R134	3069682970	6.8K ohm	
R315	3069104970	100K ohm	
R136	3069222970	2.2K ohm	
R137	3069223970	22K ohm	
R138	3069273970	27K ohm	
R139	3069103970	10K ohm	
R140	3069512970	5.1K ohm	
R141	3069330970	33 ohm	
R142	3069562970	5.6K ohm	
R143L/R	3069332970	3.3K ohm	
R144L/R	3069332970	3.3K ohm	
R145L/R	3069333970	33K ohm	
• CAPACITORS			
C101~C106	3519223520	Ceramic 0.022μ	
C107	3479210871	Elect 0.1μ/50V	
C108	3579330130	Ceramic 33p	
C109	3479210871	Elect 0.1μ/50V	
C110	3519223520	Ceramic 0.022μ	
C111	3479210971	Elect 1μ/50V	
C112	3519223520	Ceramic 0.022μ	
C113	3479247021	Elect 47μ/10V	
C114	3519223520	Ceramic 0 022μ	
C115	3409247021	Elect 47μ/10V	
C116,C117	3679222120	Mylar 0.0022μ	
C118	3479210971	Elect 1μ/50V	
C119	3579330130	Ceramic 33p	
C120	3479247971	Elect 4.7μ/50V	
C121,C124	3479247021	Elect 47μ/10V	
C122	3479210871	Elect 0.1μ/50V	
C123	3619361110	Poly 360p	
C125	3579221130	Ceramic 220p	
C126	3579473534	Ceramic 0.047μ	
C127	3479247971	Elect 4.7μ/50V	
C128	3479247021	Elect 47μ/10V	
C129,C130	3679103120	Mylar 0.01μ	
C131	3679222120	Mylar 0.0022μ	
C132,C133	3479247971	Elect 4.7μ/50V	
C134	3479210871	Elect 0.1μ/50V	
C135	3679332120	Mylar 0.0033μ	
C136	3679473120	Mylar 0.047μ	
C137	3479223971	Elect 3.3μ/50V	
C138	3479222871	Elect 0.22μ/50V	
C139	3479247021	Elect 47μ/10V	
C140	3679223120	Mylar 0.022μ	
C141	3479240971	Elect 1μ/50V	
C142L/R	3679153120	Mylar 0.015μ	
C143L/R	3679102120	Mylar 0.001μ	
C144L/R	3679222120	Mylar 0.0022μ	
C145L/R	3679472120	Mylar 0.0047μ	
C146	3479210871	Elect 0.1μ/50V	

NOTE: • TRANSISTOR(2SC 1740) CAN BE SUBSTITUTE FOR OTHER TRANSISTOR(2SC 2021)
• TRANSISTOR(2SA 933) CAN BE SUBSTITUTE FOR OTHER TRANSISTOR(2SA 937)

AM BOARD 4003608900

Ref.No.	Parts No.	Description	Position
•IC			
IC201	2168017115	AM DET LA1135	
•TRANSISTORS			
Q201.	2008606109	KTC 3199Y	
Q202	2018217100	FET 2SK 427R	
Q203	2008606109	KTC 3199Y	
•COILS			
L201	2648601840	3.3μH	
L202	2648601810	100μH	
L203	2618401040	AM RF1	
L204	2168401050	AM RF2	
L205	2638201180	AM OSC	
L206	2848001120	AMIFT1	
L207	2848001270	AM IFT2	
•TRIMMERS			
TC201	3838001010	20p	
TC202	3838001010	20p	
TC203	3838001010	20p	
•FILTERS			
CF201	3908001361	CFM 2-459BL	
CX201	3908001370	BFM 459C4N	
•VARACTOR			
VT201	2058819105	KV 1235Z	
VT202	2058819105	KV 1235Z	
VT203	2058819105	KV 1235Z	
•RESISTORS			
R201	3069104970	100K ohm	
R202	3069230970	23 ohm	
R203	3069680970	68 ohm	
R204~R206	3069104970	100K ohm	
R207	NOT USED		
R208	3069101970	100 ohm	
R209	3069820870	82 ohm	
R210	3069272970	2.7K ohm	
R211.R212	3069103970	10K ohm	
•CAPACITORS			
C201.C202	3509223534	Ceramic 0.022μ	
C203	3509332530	Ceramic 0.0033μ	
C204	3509223534	Ceramic 0.022μ	
C205	3409222041	Elect 22μ/16V	
C206~C208	3509223534	Ceramic 0.022μ	
C209	3698471110	Multilayer SR15TC 471J	
C210~C213	3509223534	Ceramic 0.022 μ	
C214	3409222971	Elect 2.2μ/50V	
C215	3509223534	Ceramic 0.022μ	
C216	3409210971	Elect1μ/50V	
C217	3409247971	Elect 4.7μ/50V	
C218	3409223971	Elect 3.3μ/50V	
C219.C220	3509223534	Ceramic 0.022μ	
C222.C221	3409210121	Elect 100/10	
C223	3609273120	Mylar 0.027μ	
•DECK ASS'Y			
C901	3409247131	Elect 470μ/16V	

PLL BOARD 4002604000

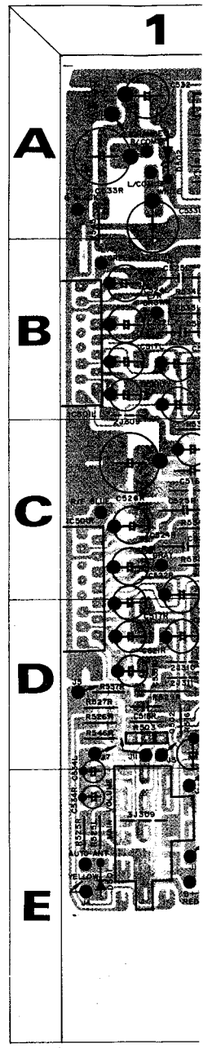
Ref.No.	Parts No.	Description	Position
•ICS			
IC601	2138013128	μPD 1708G-219	1A
•TRANSISTORS			
Q601	2008622107	2SC 1740	1B
Q602.Q603	2008610103	2SD 636	1C
Q604.Q605	2008222106	2SA 933	1D
Q606	2008622107	2SC 1740	1D
Q607.Q608	2008222106	2SA 933	1B
Q609	2008222106	2SA 933	2A
Q610	2008622107	2SC 1740	1D
Q611	2008222106	2SA 933	2B
Q612	2008222106	2SA 933	1B
Q613	2008622107	2SC 1740	1C
Q614.Q615	2008222106	2SA 933	2B
Q610	2008222106	2SA 933	2B
•DIODES			
D601~D625	2058322101	1N 4148	1D
D602	2058322101	1N 4148	1C
D603	2058322101	1N 4148	1C
D604	2058322101	1N 4148	1C
D605	2058322101	1N 4148	2A
D606	2058322101	1N 4148	2A
D607	2058322101	1N 4148	2A
D608	2058322101	1N 4148	2B
D609	2058322101	1N 4148	2B
D610	2058322101	1N 4148	2B
D611	2058322101	1N 4148	2B
D612	2058322101	1N 4148	1C
D613	2058322101	1N 4148	1C
D614	2058322101	1N 4148	2B
D615	2058322101	1N 4148	2B
D616	2058322101	1N 4148	2B
D617	2058322101	1N 4148	2A
D618	2058322101	1N 4148	2A
D619	2058322101	1N 4148	2A
D620	2058322101	1N 4148	2A
D621	2058322101	1N 4148	1C
D622	2058322101	1N 4148	2B
D623	2058322101	1N 4148	2B
D624	2058322101	1N 4148	2B
D625	2058322101	1N 4148	2A
DZ601	2058599104	ZENER DZ-5.68M	1C
•X-TAL			
X-tal	3908101050	4.5M	
•BATTERY			
BT701	5518000910	Ni-Ca 11DK 3.6U	
•RESISTORS			
R601		3.3K ohm 1/8W	
R602		33K ohm 1/8W	
R603		47 ohm 1/8W	
R604	3069223970	22K ohm 1/8W	
R605	3069103970	10K ohm 1/8W	
R606	3069222970	2.2K ohm 1/8W	
R607	3069472970	4.7K ohm 1/8W	
R608	3069105970	1M	
R609		NOT USED	
R610	3069222970	2.2K ohm 1/8W	
R611	3069182970	1.8K ogm 1/8W	
R612	3069473970	47K ohm 1/8W	
R613	3069472970	4.7K ohm 1/8W	
R614	3069473970	47K ohm 1/8W	
R615	3069472970	4.7K ohm 1/8W	
R616	3069102970	1.0K ohm 1/8W	
R617	3069473970	47K ohm 1/8W	
R618	3069102970	1K ohm 1/8W	
R619	3069470970	47 ohm 1/8W	
R620	3069103970	10K ohm 1/8W	
R621	3069473970	47K ohm 1/8W	
R622	3069103970	10K ohm 1/8W	
R623	3069103070	10K ohm 1/8W	
R624	3069473970	47K ohm 1/8W	
R626	3069103970	10K ohm 1/8W	
R626	3069332970	3.3K ohm 1/8W	

Ref.No.	Parts No.	Description	Position
R627	3069333970	33K ohm 1/8W	
R628	3069333970	33K ohm 1/8W	
R629	3069333970	33K ohm 1/8W	
R630	3069333970	33K ohm 1/8W	
R631	3069103970	10K ohm 1/8W	
R632	3069473970	47K ohm 1/8W	
R633	3069103070	10K ohm 1/8W	
R634	3069473970	47K ohm 1/8W	
R635	3069103970	10K ohm 1/8W	
R636	3069473970	47K ohm 1/8W	
R637	3069473970	47K ohm 1/8W	
R638	3069503970	10K ohm 1/8W	
R639	3069473970	40K ohm 1/8W	
R640	3069103970	10K ohm 1/8W	
R641	3069473970	47K ohm 1/8W	
R642	3069103970	10K ohm 1/8W	
•CAPACITORS			
C601	3579102530	Ceramic 1008P	
C602	3519223520	Ceramic 0.022μF	
C603	3479210121	Elect 100μF/10V	
C604~C607	3519223520	Elect 0.022μF	
C608	3409222971	Elect 2.2μF/50V	
C609.C610	3579200130	Ceramic 20P	
C611	3519223520	Ceramic 0.022μF	
C612.C613	3479210121	Elect 100μF/10V	

Top & Bo

MAIN P.C BOARI

-TOP VIEW - 4002

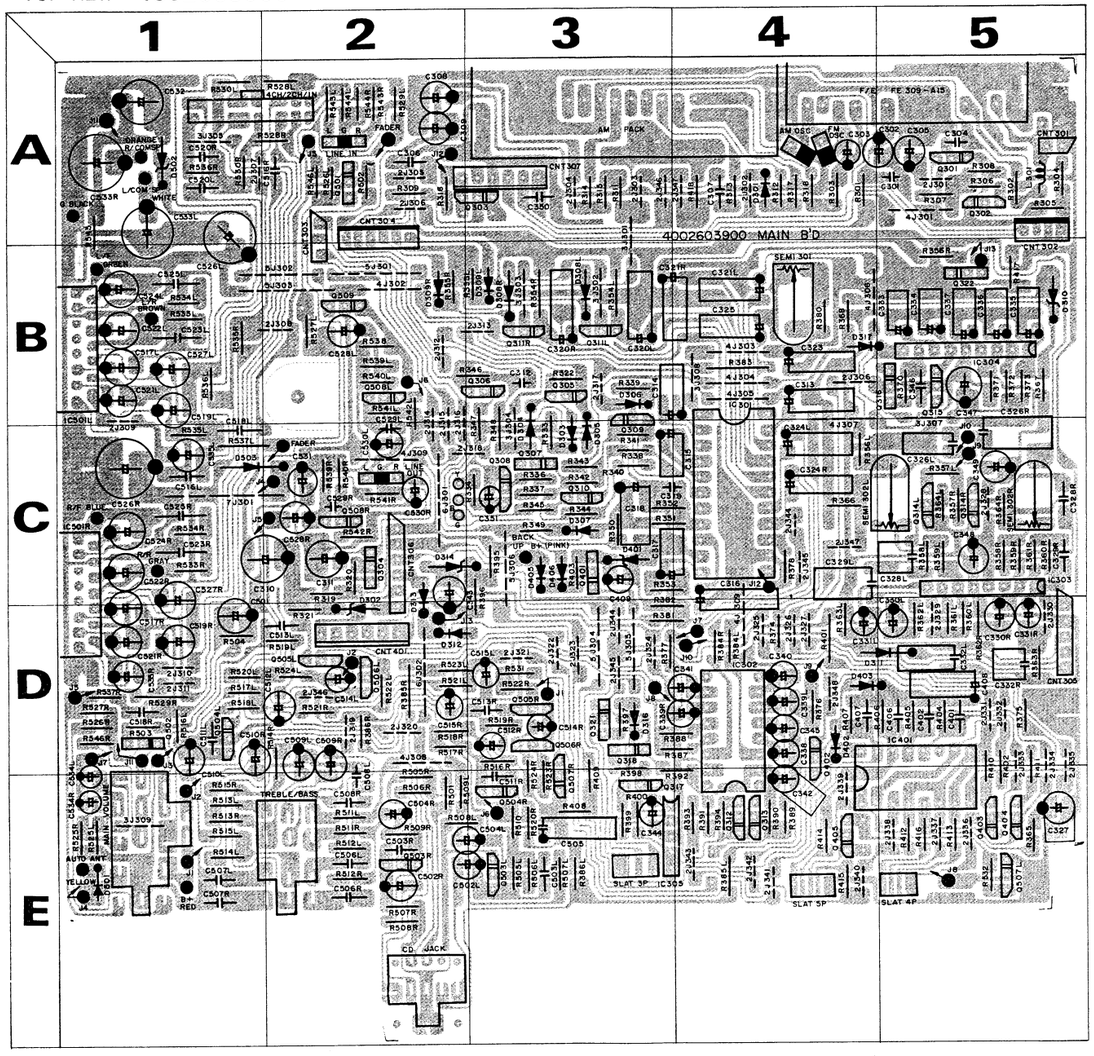


Ref.No.	Parts No.	Description	Position
R627	3069333970	33K ohm 1/6W	
R628	3069333970	33K ohm 1/6W	
R629	3069333970	33K ohm 1/6W	
R630	3069333970	33K ohm 1/6W	
R631	3069103970	10K ohm 1/6W	
R632	3069473970	47K ohm 1/6W	
R633	3069103070	10K ohm 1/6W	
R634	3069473970	47K ohm 1/6W	
R635	3069103970	10K ohm 1/6W	
R636	3069473970	47K ohm 1/6W	
R637	3069473970	47K ohm 1/6W	
R638	3069503970	10K ohm 1/6W	
R639	3069473970	40K ohm 1/6W	
R640	3069103970	10K ohm 1/6W	
R641	3069473970	47K ohm 1/6W	
R642	3069103970	10K ohm 1/6W	
● CAPACITORS			
C601	3579102530	Ceramic 1008P	
C602	3519223520	Ceramic 0.022μF	
C603	3479210121	Elect 100μF/10V	
C604~C607	3519223520	Elect 0.022μF	
C608	3409222971	Elect 2.2μF/50V	
C609,C610	3579200130	Ceramic 20P	
C611	3519223520	Ceramic 0.022μF	
C612,C613	3479210121	Elect 100μF/10V	

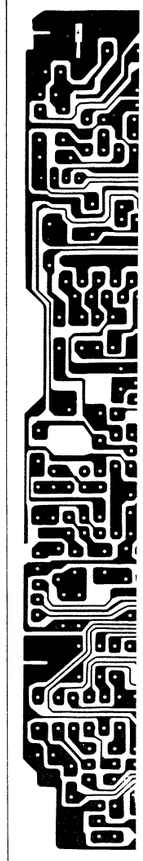
Top & Bottom View of P.C Boards

MAIN P.C BOARD

– TOP VIEW – 4002603900



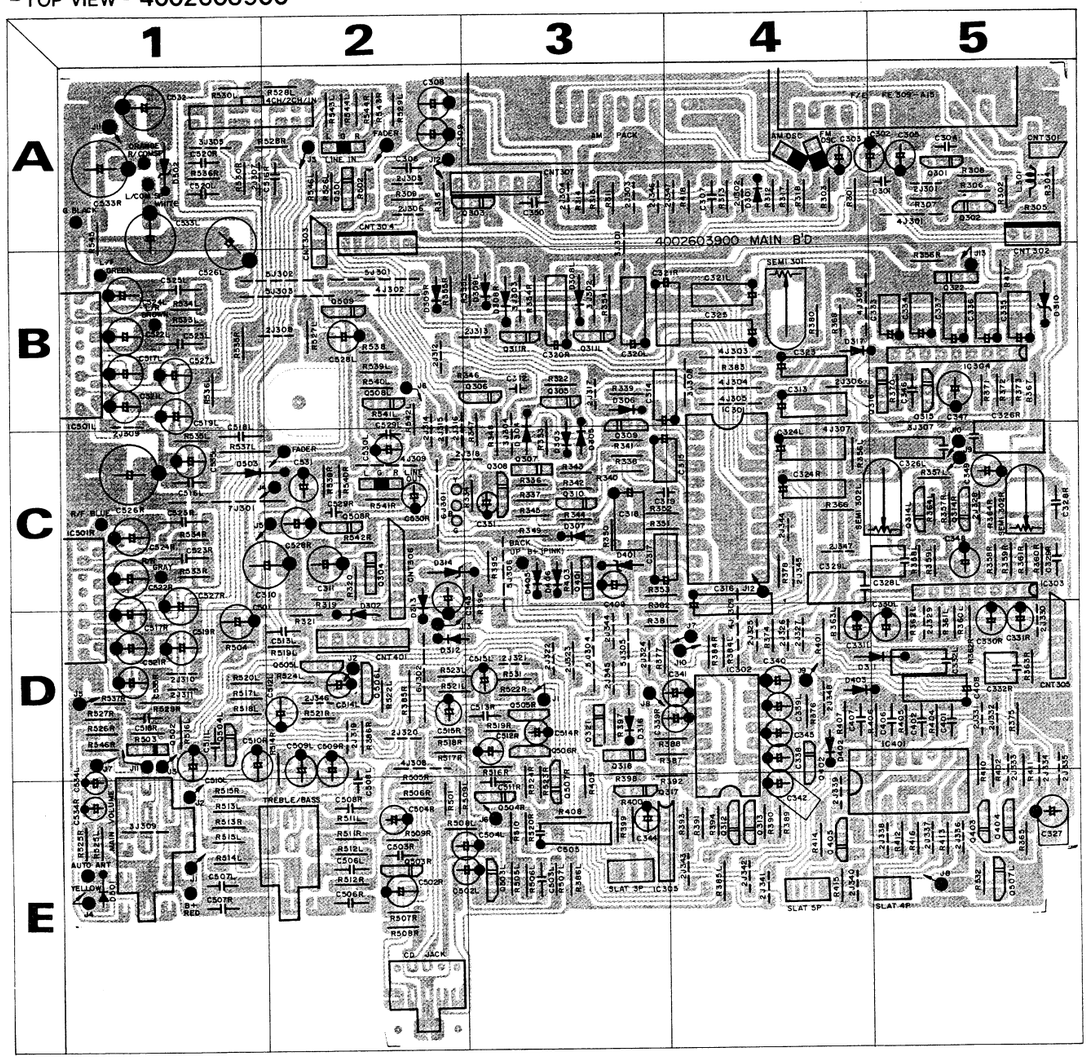
– BOTT



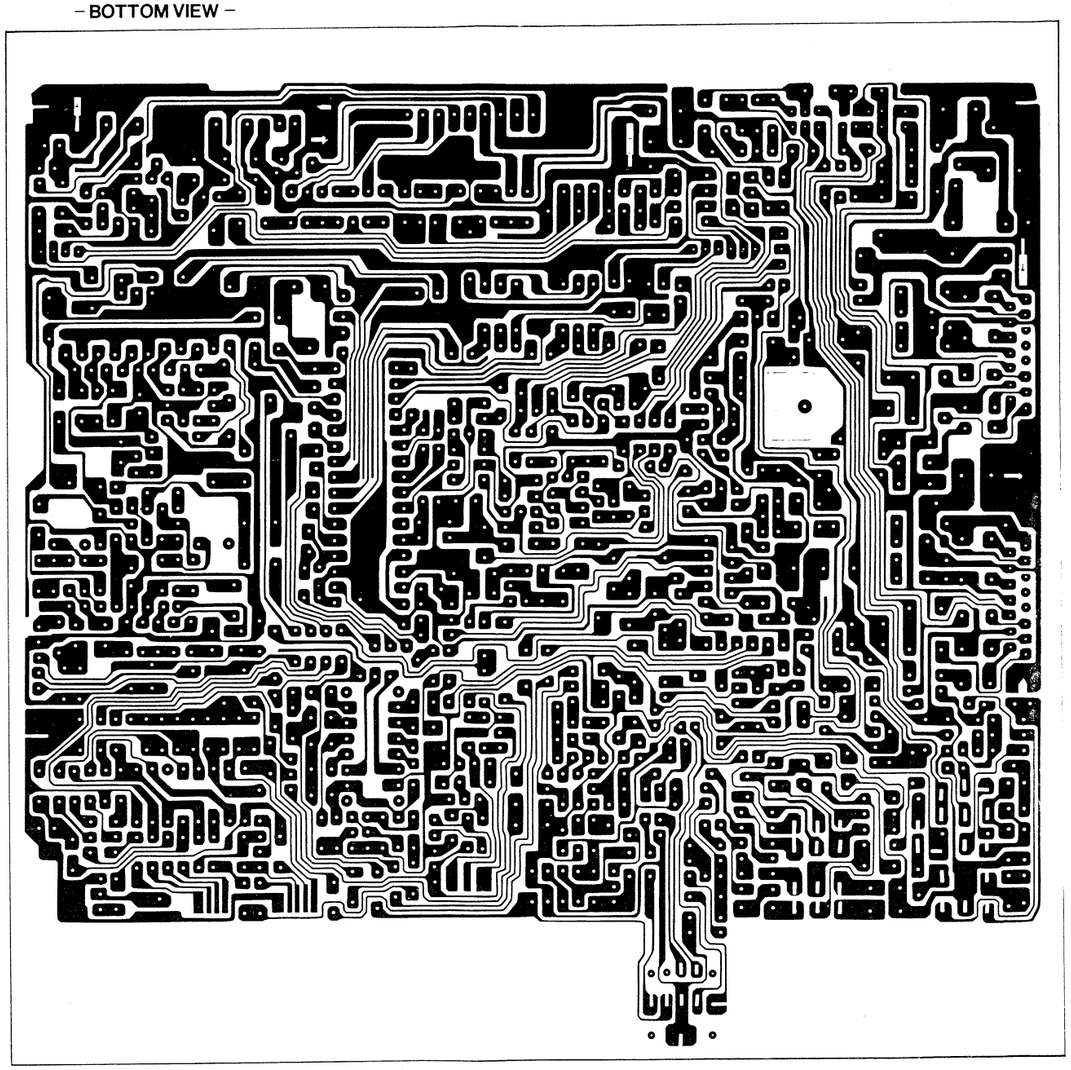
Top & Bottom View of P.C Boards

MAIN P.C BOARD

– TOP VIEW – 4002603900

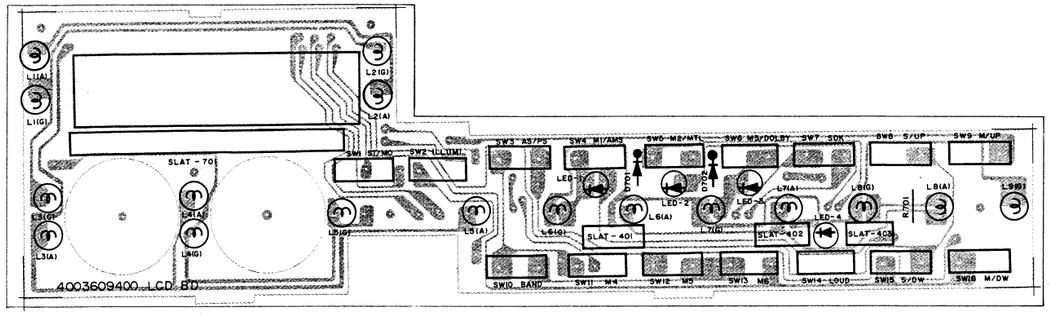


– BOTTOM VIEW –

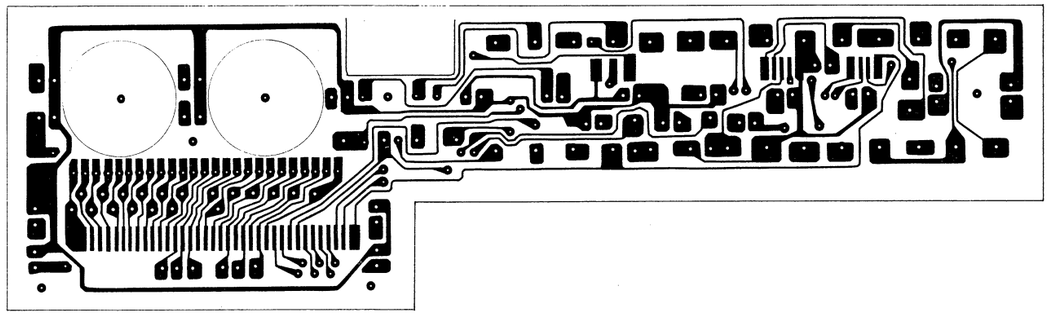


LCD P.C BOARD

– TOP VIEW 4003609400

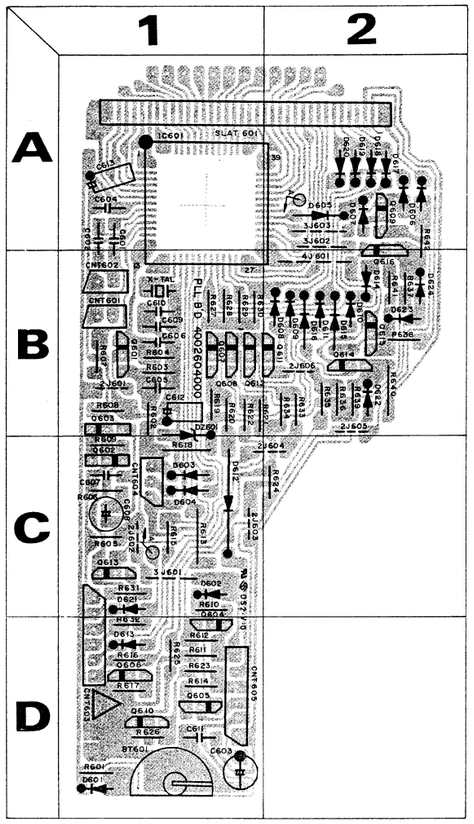


– BOTTOM VIEW



PLL P.C BOARD

– TOP VIEW 400260400



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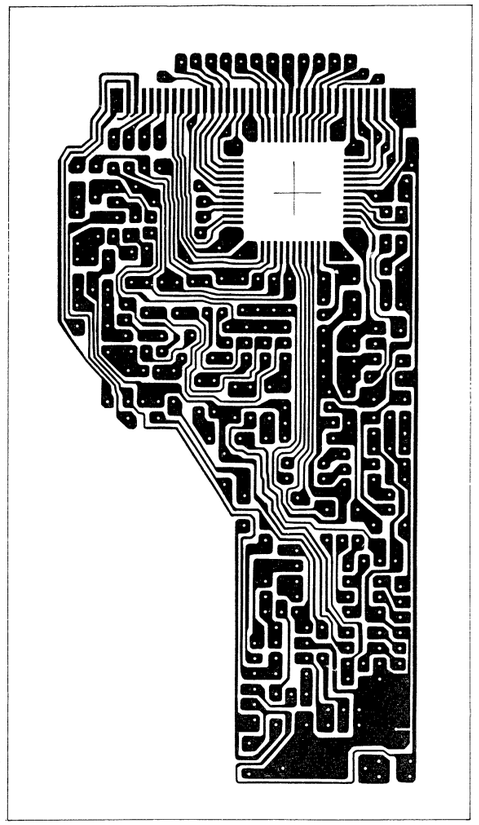
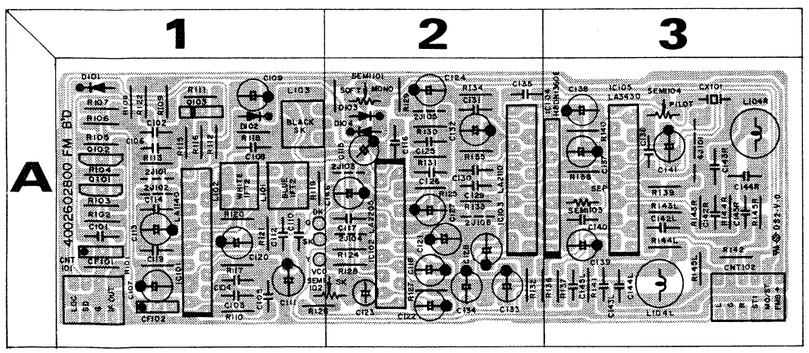
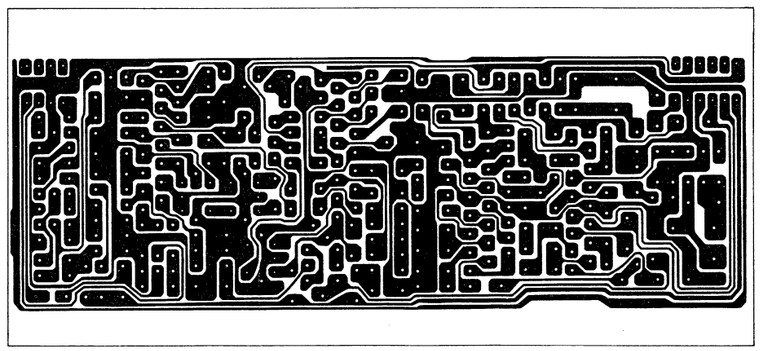


FM P.C BOARD

– TOP VIEW 4002602800

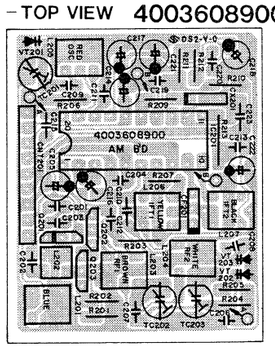


– BOTTOM VIEW



AM P.C BOARD

– TOP VIEW 4003608900



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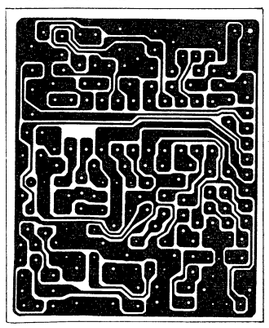
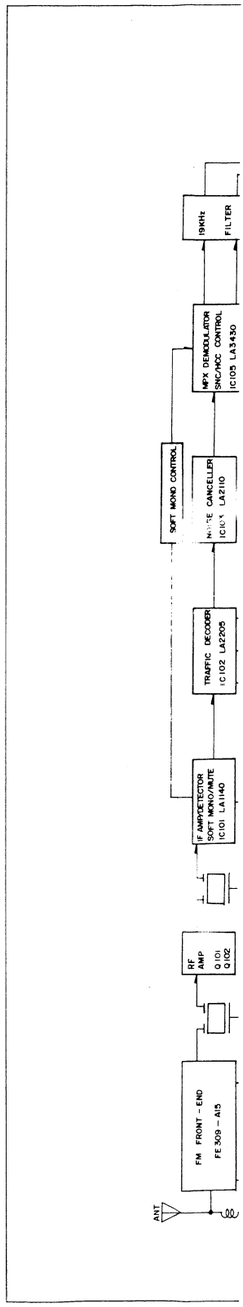
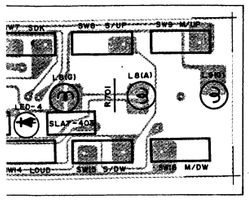
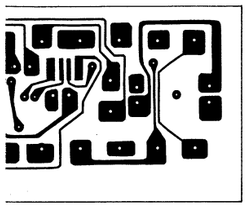


Block Diagr







PLL P.C BOARD

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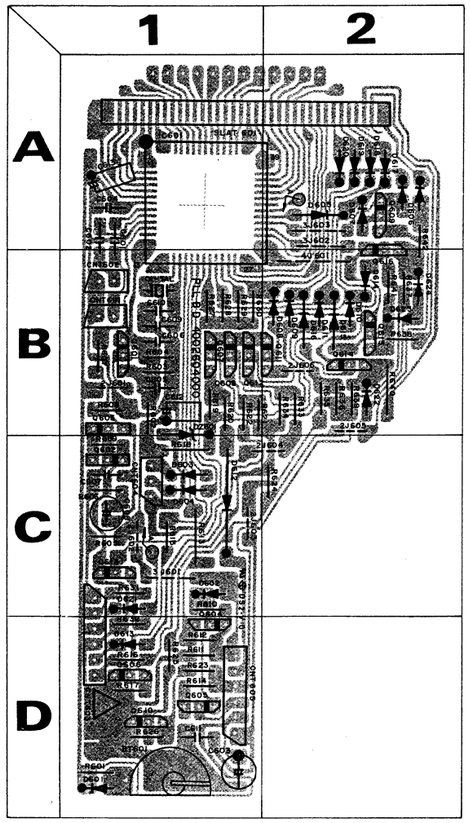
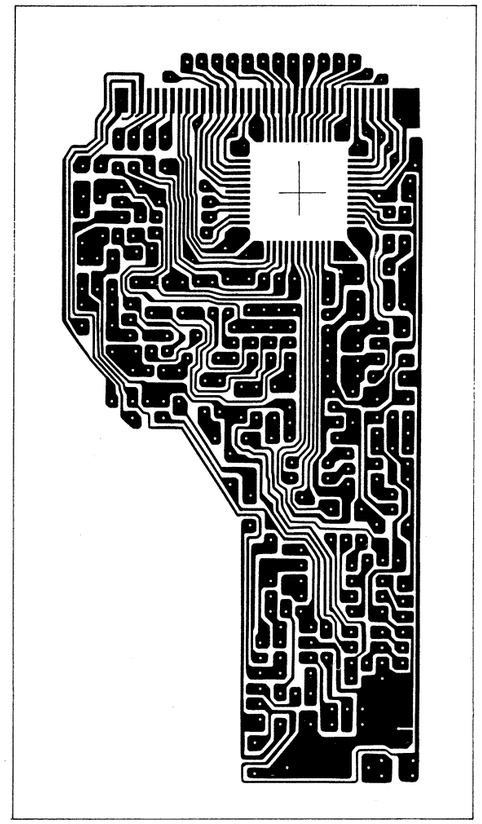


– BOTTOM VIEW



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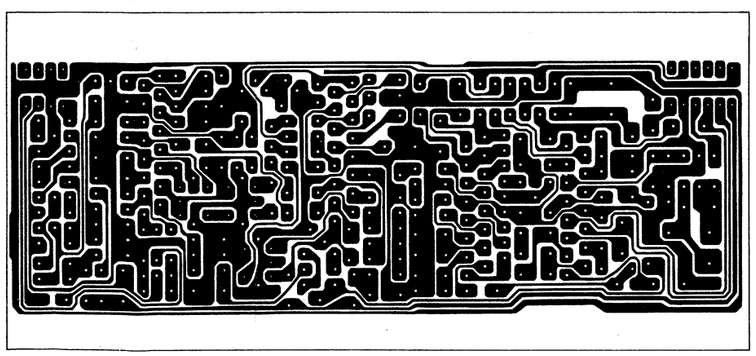

AM P.C BOARD

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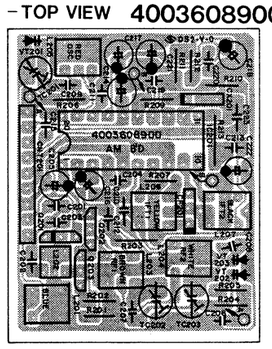

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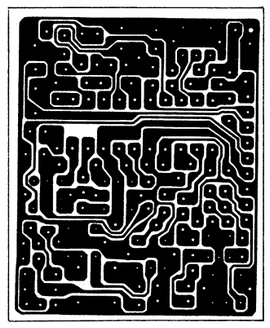
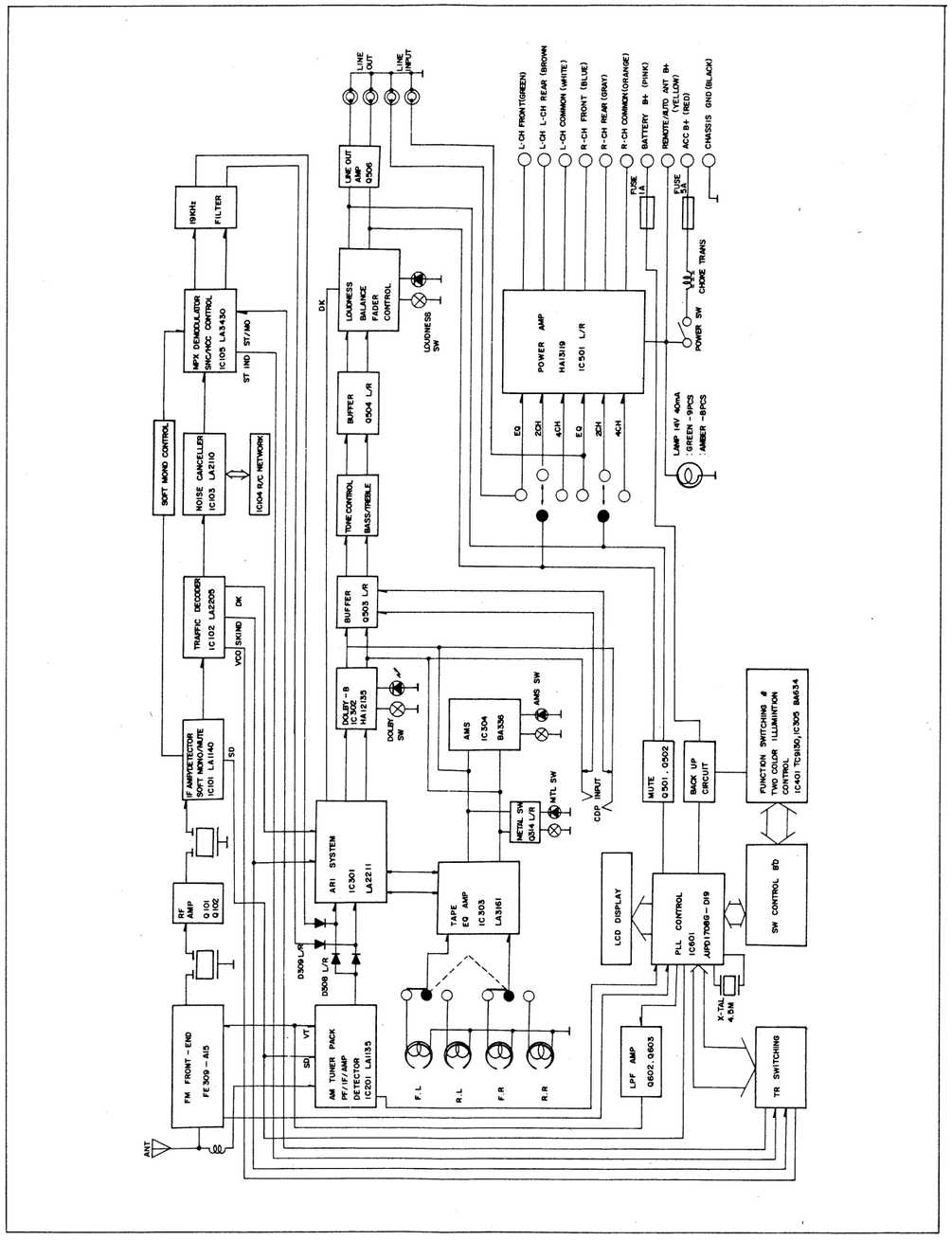


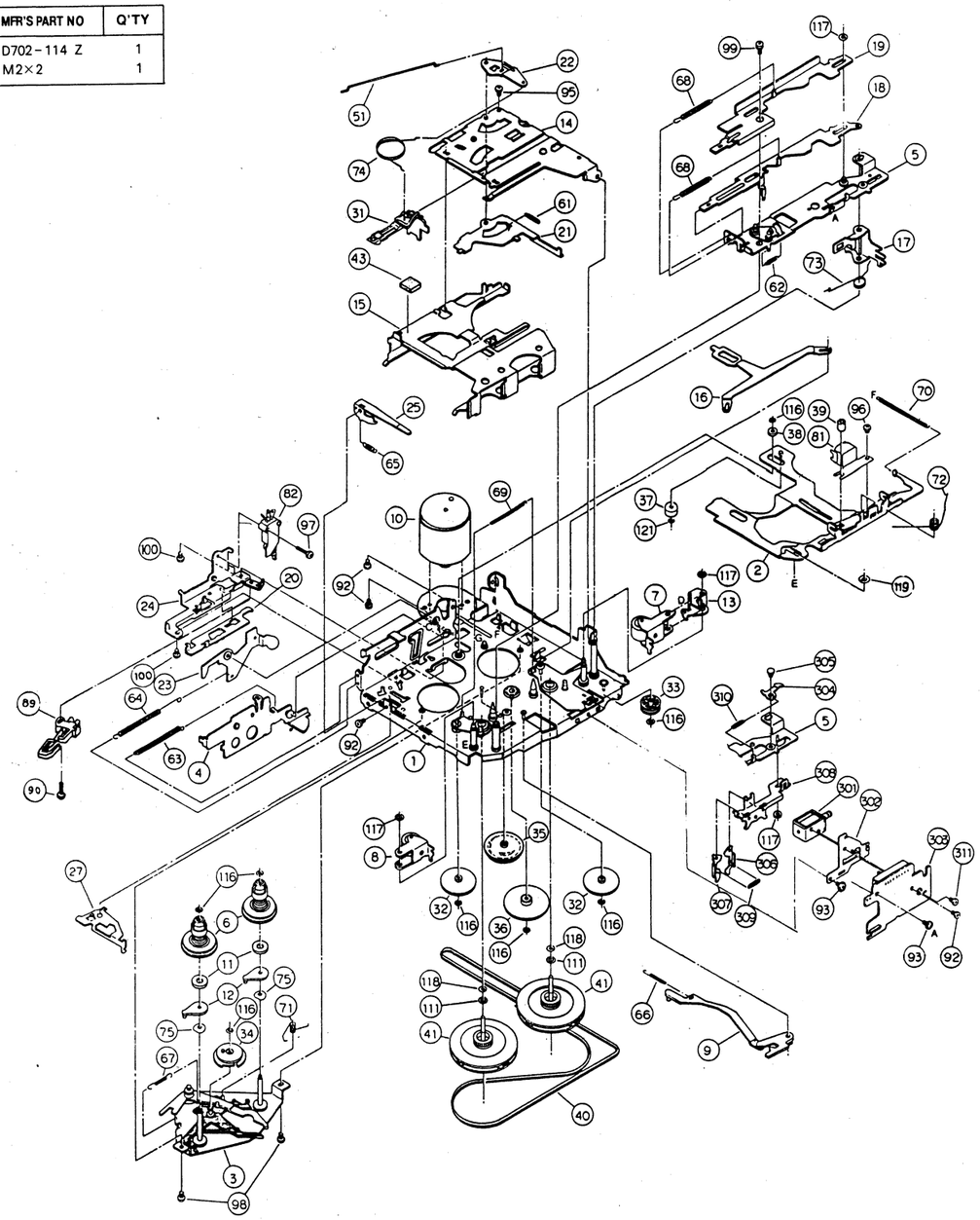
Block Diagram



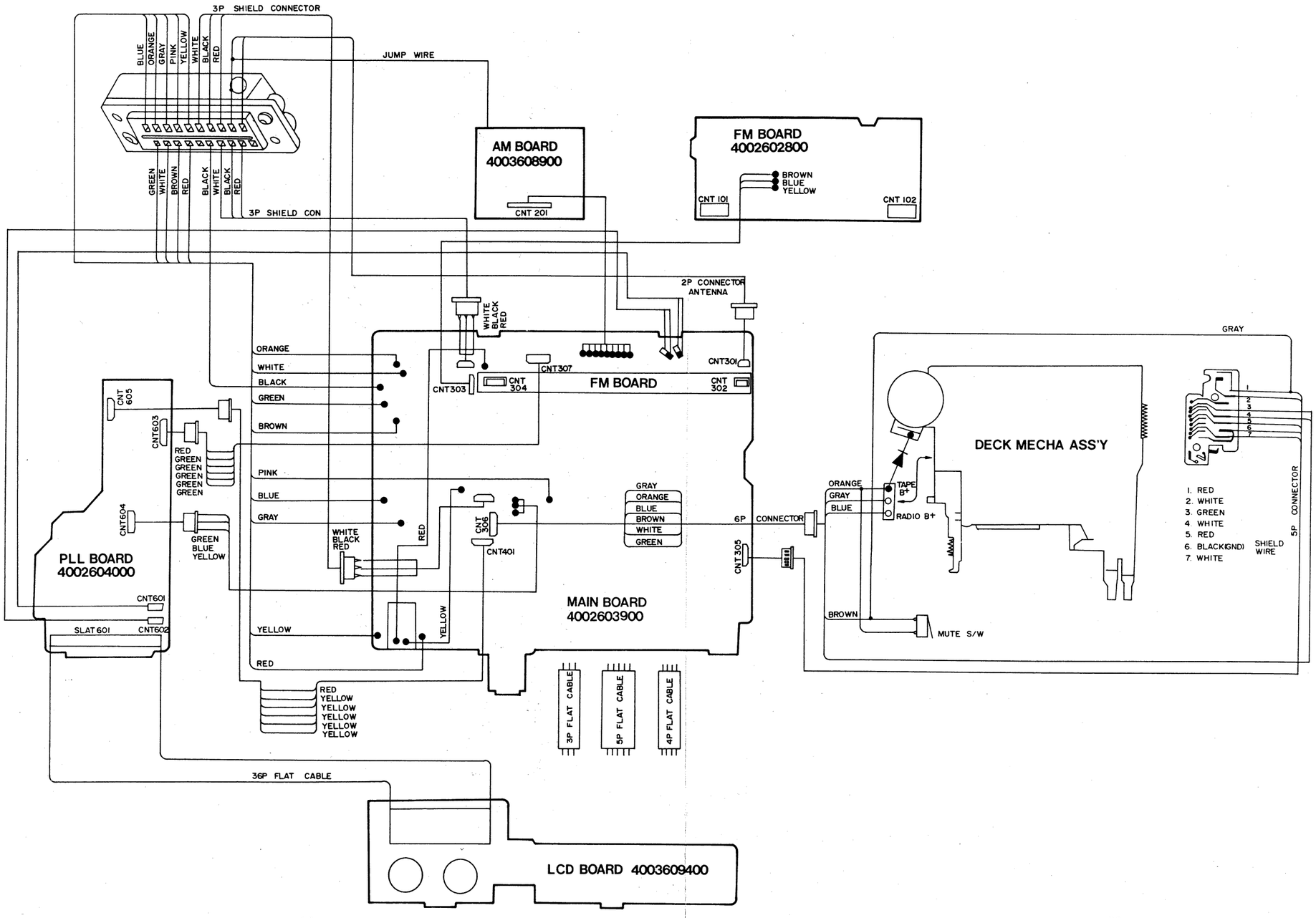
Parts List & Exploded View of Deck Mechanism Ass'y

REF NO.	DESCRIPTION	MFR'S PART NO.	Q'TY
1	MAIN CHASSIS ASS'Y	D001-CD11	1
2	HEAD PLATE ASS'Y	D006-E14	1
3	REEL PLATE ASS'Y	D010-E04	1
4	EJECT LEVER ASS'Y	D012-E07	1
5	SIDE PLATE ASS'Y	D013-E10/1	1
6	REEL GEAR ASS'Y	D016-E14	2
7	PINCH ROLLER F ASS'Y	D017-E13/1	1
8	PINCH ROLLER R ASS'Y	D017-E13/2	1
9	TURN LEVER ASS'Y	D022-E11	1
10	MOTOR ASS'Y	D025-E08/2	1
11	FRICTION FELT B	D135-E09	2
12	SENSER LEVER A	D201-E05	2
13	FR CAM A	D112-E15	1
14	ACTION PLATE	D118-D04	1
15	CASSETTE CASE	D122-C03	1
16	GEAR CONNECTION PLATE	D133-E07	1
17	FR CANCELL PLATE	D154-E09	1
18	FR LEVER A	D155-D20	1
19	FR LEVER B	D155-D21	1
20	ACTUATEA A	D166-E23	1
21	TURN PLATE B A	D174-E07	1
22	TURN PLATE B	D174-E08	1
23	ACTION ARM	D192-E04	1
24	SUB CHASSIS	D199-D09	1
25	LOCK PLATE B	D202-E06	1
27	LOCK PLATE A	D202-E08	1
31	CASSETTE PUSHER	D121-C02	1
32	TAKE UP GEAR	D146-E11	2
33	IDLE PULLEY	D151-E06/	1
34	CHANGE GEAR A	D196-D07	1
35	CHANGE GEAR B	D196-D06	1
36	IDLE GEAR	D212-E12	1
37	ROLLA A	D126-E20	1
38	ROLLA B	D126-E21	1
39	AZIMUTH NUT	D162-E01	1
40	BELT	D144-E13	1
41	FLY WHEEL	D145-E07	2
43	CUSHION SPONGE	D234-E01	1
51	COUPLING BAR	D165-E02	1
61	SPRING	Z701-E27	1
62	SPRING	Z701-E39	1
63	SPRING	Z702-E86	1
64	SPRING	Z702-E87	1
65	SPRING	Z702-E88	1
66	SPRING	Z702-E97	1
67	SPRING	Z702-E99	1
68	SPRING	Z702-E111	2
69	SPRING	Z702-E112	1
70	SPRING	Z702-E115	1
71	SPRING	Z722-E08	1
72	SPRING	Z722-E12	1
73	SPRING	Z724-E09	1
74	SPRING	Z730-E01	1
75	SPRING	P504-E15	2
81	HEAD		1
82	QUIQU ACTION SWITCH	QAS-1229-4	1
89	SWITCH	MSW-1547N	1
90	PRECISION SCREW	M1.7×4.5	
92	PRECISION SCREW	M2×3	
93	ST SERRATE SCREW(PAN)	M2×3	
95	PRECISION SCREW	M2×4	
96	SCREW (BIND)	M2×4	
97	SCREW (BIND)	P627-E20/1	
98	SCREW (PAN)	M2. 6×3	
99	SCREW (SEMS)	M2. 6×4. 5	
100	SCREW (PAN)	M2×3	
111	PS WASHER	Z204-E01/5	
116	PS WASHER	Z205-E01/1	
117	PS WASHER	Z205-E01/3	
118	PS WASHER	Z205-E01/8	
119	PS WASHER	Z205-E01/9	
121	E RING	Z100-E01/C1	
301	SOLENOID (APS)	D030-E06	1
302	SUPPORT PLATE	D206-E06	1
303	SWITCH P.C.B(A) ASS'Y	PC-252	1
304	FOOK	D157-E14	1
305	PIN	Z647-E16	1
306	CHANGE LEVER F	Z647-E05	1
307	CHANGE LEVER R	D214-E06	1
308	ACTUATER C ASS'Y	D039-E03	1
309	SPRING	Z702-113	1

REF NO.	DESCRIPTION	MFR'S PART NO	Q'TY
310	SPRING	D702-114 Z	1
311	PRECISION SCREW	M2×2	1



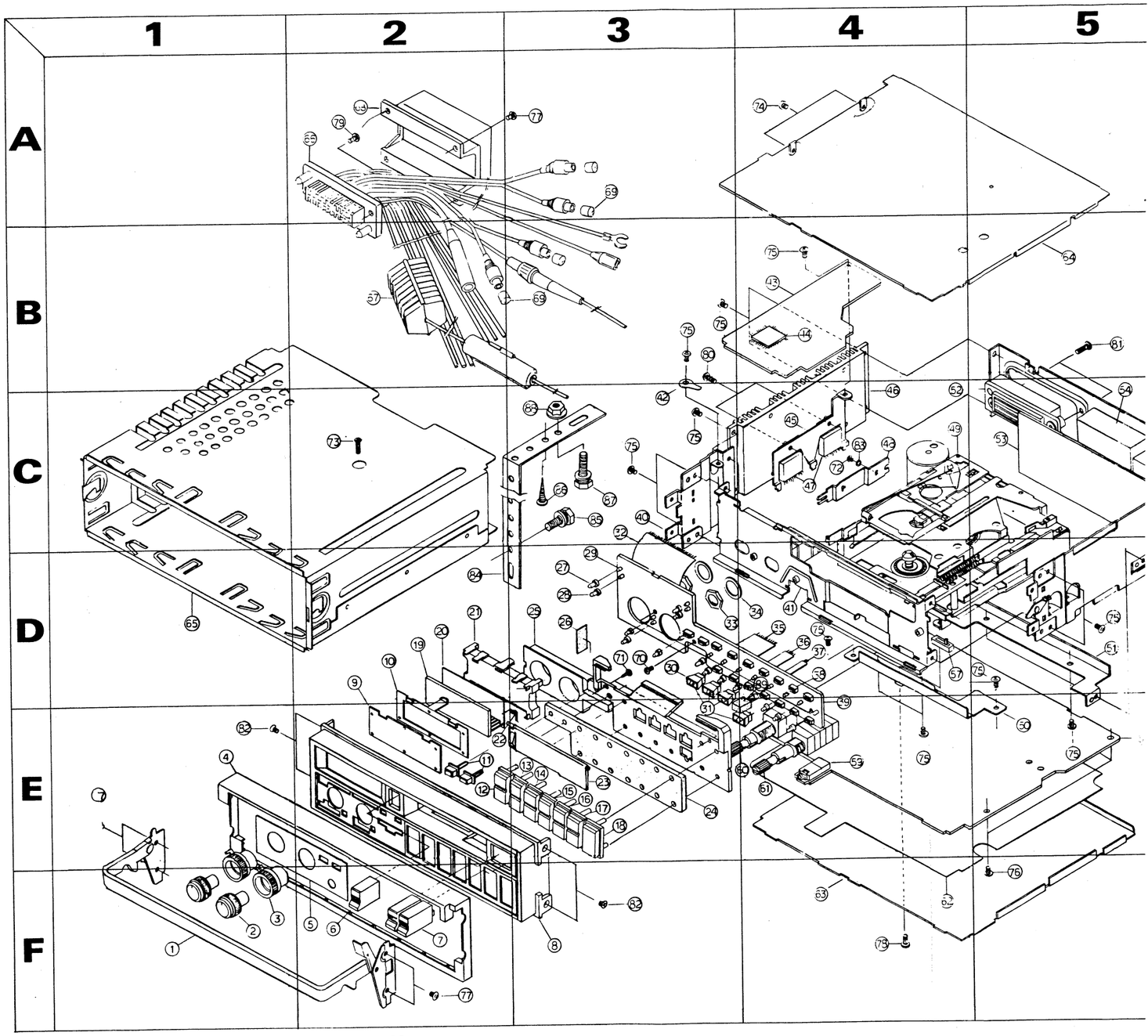
Point to Point Wiring Diagram



Parts List & Exploded View of Cabinet & Chassis

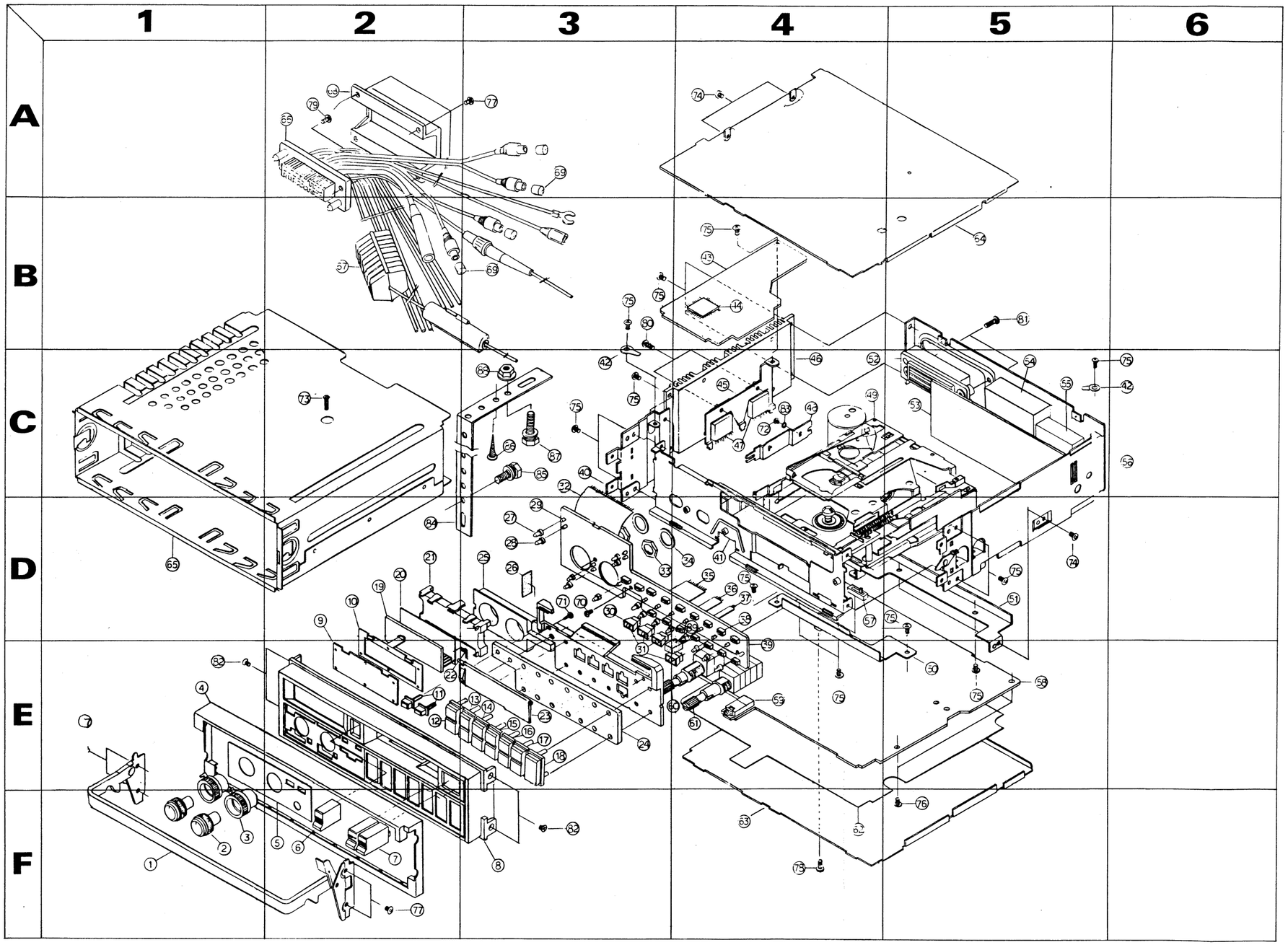
NO.	PARTS NO.	DESCRIPTION	Q'TY	POSITION
1	8663000510	HANDLE ASS'Y	1	1F
2	8545043920	KNOB-CONTROL INNER	2	1F
3	8545038410	KNOB-CONTROL OUTER	2	1F
4	048522004011	DECORATION	1	1E
5	048555021412	INLAY FUNCTION	1	2F
6	8545049910	BUTTON-EJECT	1	2F
7	8545049810	BUTTON-PROG	2	2F
8	048502003014	PANEL FRONT	1	3F
9	8555021710	WINDOW-LCD	1	2D
10	6503011810	PLATE-LCD	1	2D
11	8545049610	BUTTON ILLUMINATION	2	2E
12	048545054411	BUTTON "BAND"	1	2E
13	048545054412	BUTTON "4"	1	3E
14	048545054418	BUTTON "5"	1	3E
15	048545054414	BUTTON "6"	1	6E
16	048545054427	BUTTON "SDK"	1	3E
17	048545054417	BUTTON "LEEK"	1	3E
18	048545054511	BUTTON "TUNE"	1	3E
19	2338021125	LCD SLA-0506B	1	2D
20	8538000810	FILTER COLOR	1	2D
21	8552002210	HOLDER-LCD	1	2D
22	6555604110	SPRING—DOOR	1	2E
23	048535020815	DOOR CASSETTE	1	3E
24	6705009610	SPONGE-CUSHION	1	3E
25	8552002010	REFLECTOR-ILLUMINATION	1	3D
26	6735006210	FELT ILLUMINATION	1/25	3D
27	8728000170	COLOR CAP(AMBER)	7	3D
28	8725000110	COLOR CAP(GREEN)	8	3D
29	2528201111	LAMP 14V 40mA	15	3D
30	8545053410	COVER LED	4	3D
31	2308220129	LED SLH 34VC,RED	4	3D
32	4115301330	WIRE-SLATE 37P	1	3C
33	3208048210-1	NUT,HEX M9×0.75	2	3D
34	3208048210-2	WASHER,φ9.2	2	4D
35	4115301330	WIRE-SLATE 3P	1	4D
36	4115301370	WIRE-SLA3E 5P	1	4D
37	4115301360	WIRE-SLATE 4P	1	4D
38	4658003010	S/W TACT KPT-1107A	16	4D
39	40036094 0	PCB LCD	1	4E
40	6123406120	SIDE FRAME "L"	1	3C
41	6123405610	CHASSIS-FRONT	1	4D
42	4205000810	TERMINAL LUG	2	3C,6C
43	4002604000	PCB PLL	1	4B
44	2138013128	IC UPD 1708G-219	1	4B
45	6505084010	BRACKET-IC'S	1	4C
46	7503009210	HEAT SINK IC'S	1	4C
47	2168011130	IC HA 13119	2	4C
48	6505082310	SHAFT EJECT	1	4C
49	5708006910	DECK MECHA	1	4C
50	6505087710	BRAKET DECK-FRONT	1	5E
51	6503011610	BRAKET DECK-REAR	1	5D
52	4308004130	PULL OUT Connector PLUG	1	4C
53	4002602800	PCB FM	1	5C
54	4003608900	PCB AM	1	5C
55	3928101080	INSULATION	1	5C
56	6122616230	SIDE FRAME "R"	1	5C
57	4618005310	S/W SLIDE SSS343 G14	1	4D
58	4002603900	PCB MAIN	1	5E
59	4438003410	CD JACK HSJ0863-01-410	1	4E
60	3208048210	POINTIOMETER VR	1	3E
61	3208049310	POINTIOMETER TONE	1	4E
62	4833001110	COVER INSULATION	1	4F
63	6123406010	COVER BOTTOM	1	4F
64	6123405920	COVER TOP	1	5B
65	6022600910	CASE SLEEVE	1	1D,2A
66	4308004520	PULL OUT Connector	1	2A
67	6063101810	CAP CHOKE	1	2B
68	8585005210	COVER-JACK CONNECTOR	1	5E
69	6065101110	CAP CORD RCA	4	3A,3B
70	8009120051	SCREW BM 2×5Y	3	3D
71	8119120061	SCREW #1PT 2×6Y	2	3D
72	8019126031	SCREW PM 2.6×3Y	1	4C
73	8119426121	SCREW SAM 2.6×12Y	1	2C,6C
74	8009130041	SCREW BM 3×4Y	5	4A
75	8119430051	SCREW SAM 3×5Y	18	4B
76	8119430059	SCREW SAM 3× 5SN	3	5F
77	8119430053	SCREW SAM 3×5B	8	3A,1E
78	8019130061	SCREW PM 3×6Y	1	4F
79	8009130063	SCREW BM 3×6B	2	2A,2B
80	8119430081	SCREW SAM 3×8Y	2	3B
81	8019130101	SCREW PM 3×10Y	2	5B

NO.	PARTS NO.	DESCRIPTION	Q'TY	POSITION
82	8029126053	SCREW FM 2.6×5B	4	1E,3F
83	8319126011	WASHER SPRING φ2.6Y	1	4C
84	6505035010	STARP BACK	1	2D
85	8599150101	SCREW HEX M SP/W 5×10Y	1	3C
86	8159150203	SCREW #1WPTC 5×20B	1	3C
87	8099150201	SCREW HEX M SP/W 5×20Y	1	3C
88	8209550011	NUT,HEX M5	1	3C
89	6705010510	RUBBER SPONGE	1	4E



et & Chassis

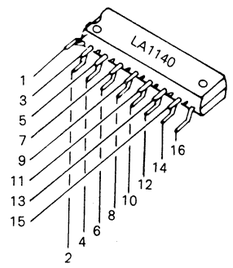
CRIPTION	Q'TY	POSITION
2.6×5B	4	1E.3F
RING ϕ2.6Y	1	4C
K	1	2D
M SP/W 5×10Y	1	3C
VPTC 5×20B	1	3C
M SP/W 5×20Y	1	3C
5	1	3C
ONGE	1	4E



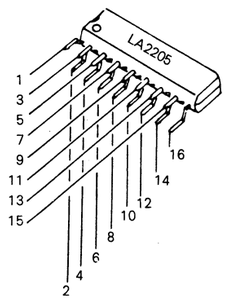
Semiconductor Lead Identification & IC Internal Diagrams

1. LEADS IDENTIFICATION

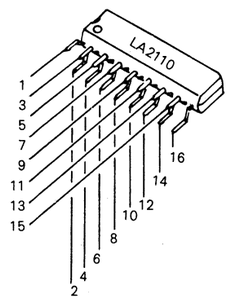
LA1140/IC101



LA2205/IC102



LA2110/IC103



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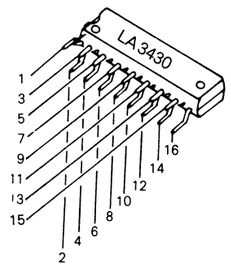
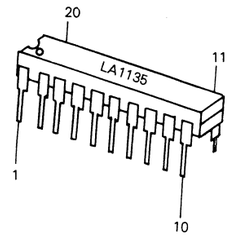


LA1135/IC201



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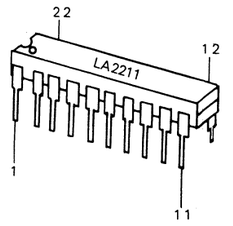

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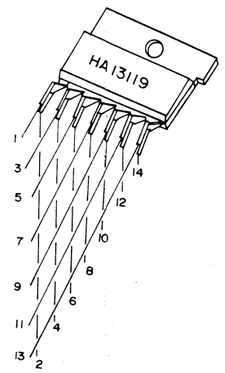

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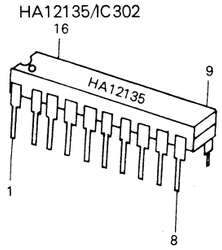

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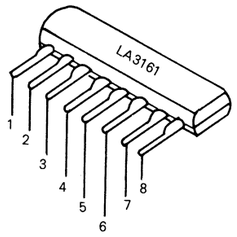

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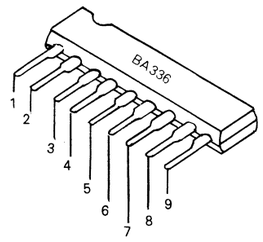

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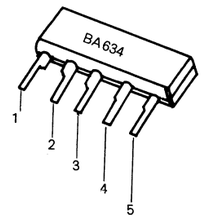

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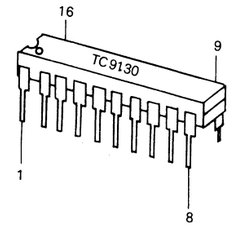

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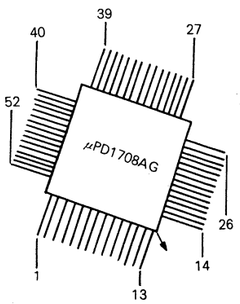
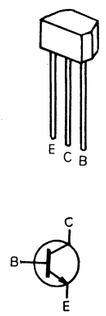
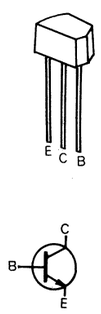


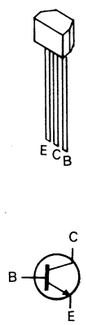
KTC3195Y/Q101,102



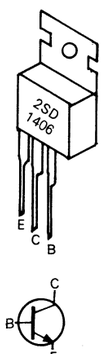
2SC1740/Q103
Q301, Q302, 303
Q306, Q308, Q310
Q311L – Q311R
Q312, Q313
Q314L – Q314R
Q317
Q402~ Q405
Q503L – Q503R
Q504L – Q 504R
Q507L – Q 507R
Q508L – Q508R
Q509
Q601, Q606
Q610, Q613



2SC3199Y/Q201, Q203



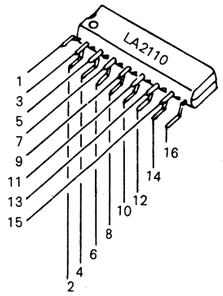
2SK 427R/Q202



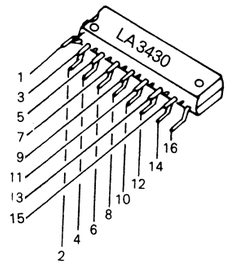
2SJ107/ Q505L-Q505R
Q506L-Q506R

& IC Internal Diagrams

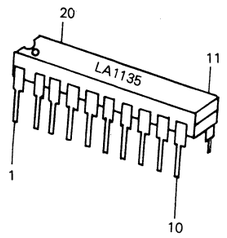
LA2110/IC103



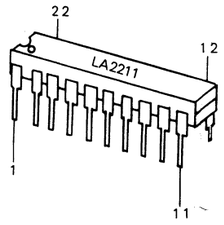
LA3430/IC105



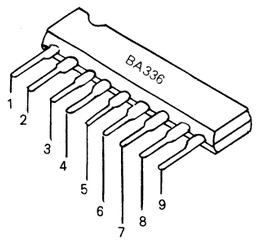
LA1135/IC201



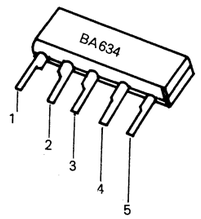
LA2211/IC301



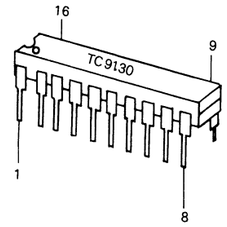
BA336/IC304



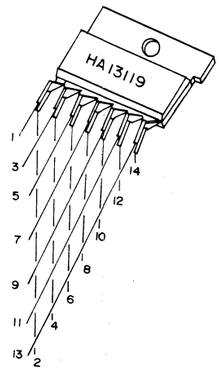
BA634/IC305



TC9130/IC401

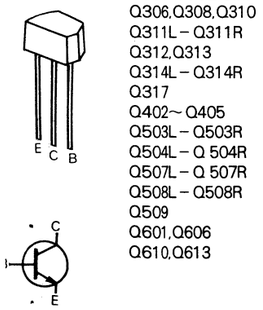


HA13119/IC501L/R

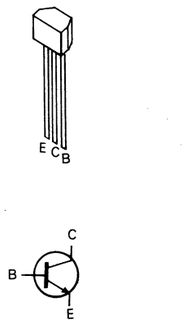


2SD1406/Q304

2SC1740/Q103
Q301, Q302, 303
Q306, Q308, Q310
Q311L – Q311R
Q312, Q313
Q314L – Q314R
Q317
Q402~ Q405
Q503L – Q503R
Q504L – Q 504R
Q507L – Q 507R
Q508L – Q508R
Q509
Q601, Q606
Q610, Q613



2SC3199Y/Q201, Q203



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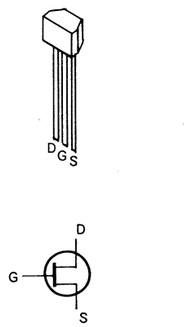
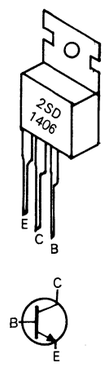
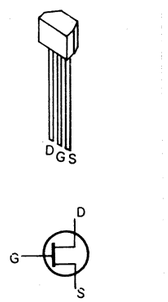
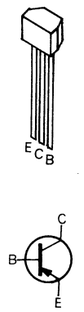




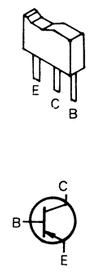
2SJ107/Q505L-Q505R
Q506L-Q506R



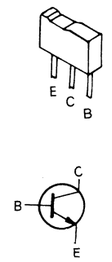
2SA933/Q604, Q605
Q607, Q608, Q609
Q611, Q612
Q614~Q616
Q305, Q309
Q315



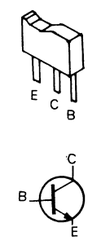
2SB822/Q307
Q318
Q321



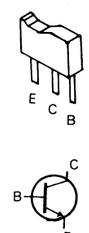
2SD1055/Q316, Q401



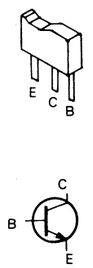
DTC114T/Q322



2SD1330/ Q501, Q502

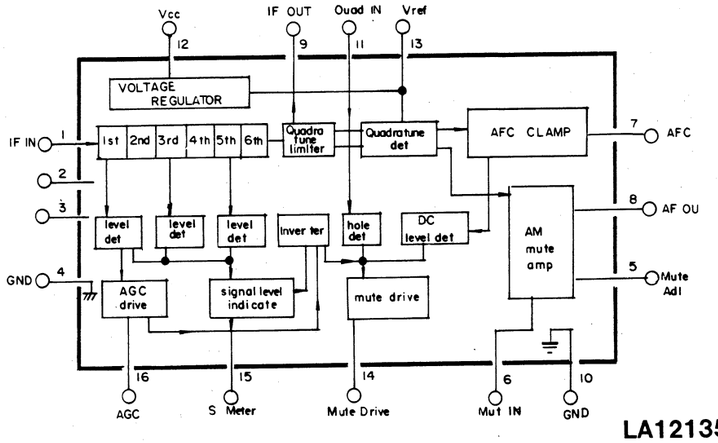


2SD636/Q602, Q603

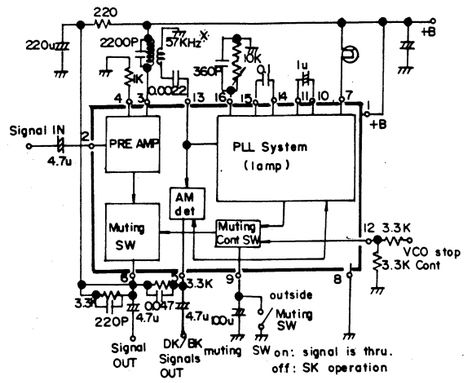


2. IC INTERNAL DIAGRAMS

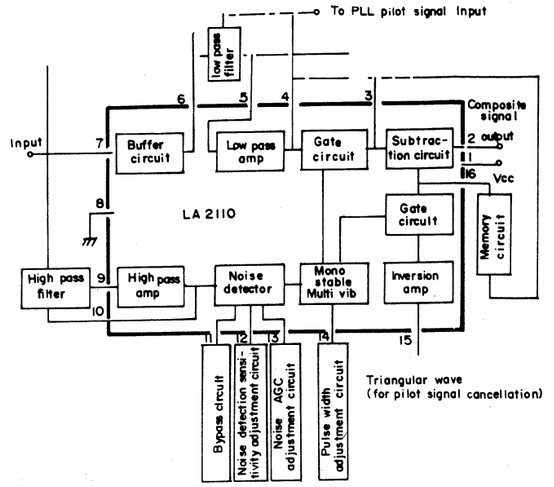
LA1140(FM IF DETECTION/IC101)



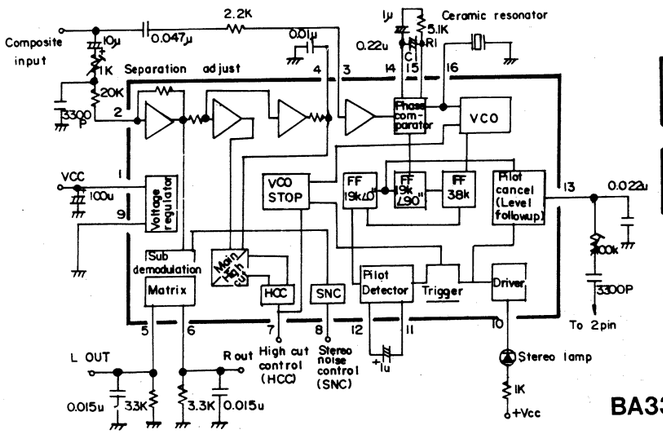
LA2205(TRAFFIC DECODER/IC102)



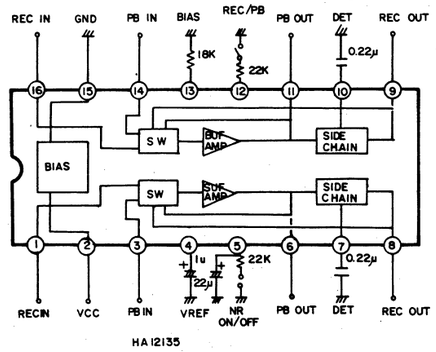
LA2110(NOISE CANCELLER/IC103)



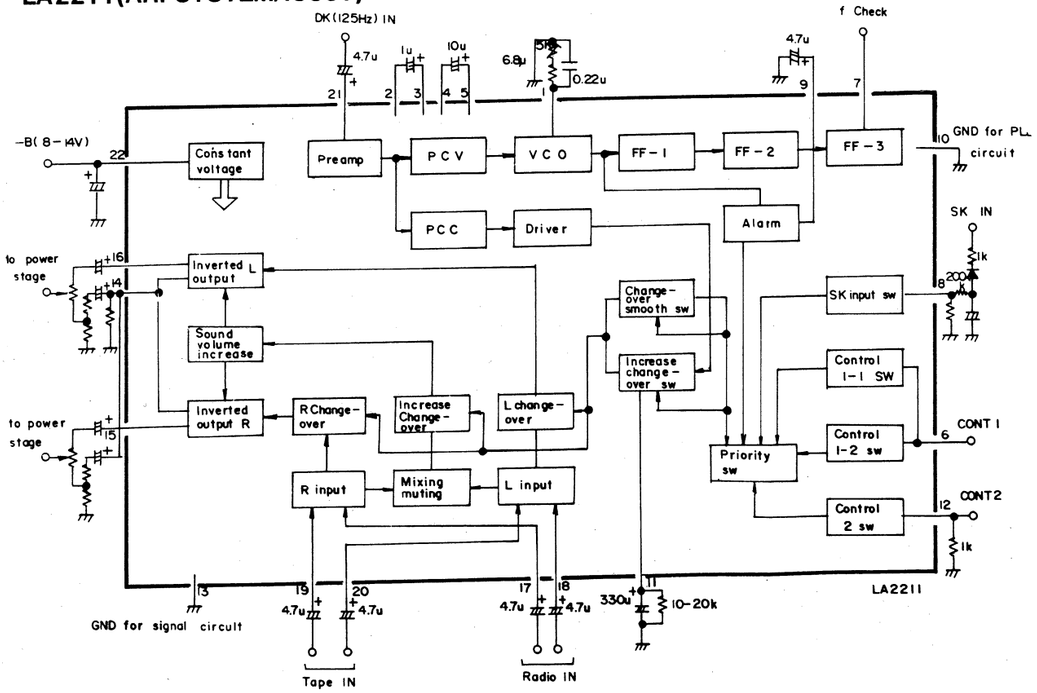
LA3430(MPX/IC105)



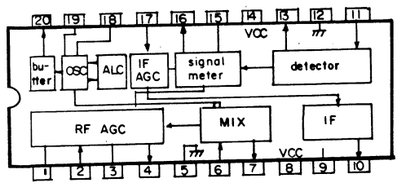
LA12135(DOLBY/IC302)



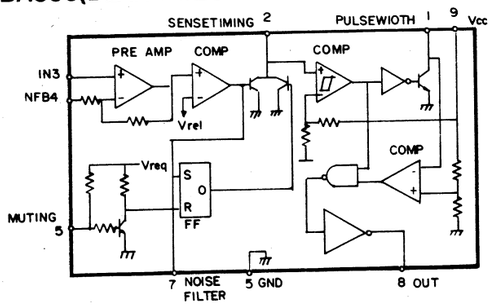
LA2211(ARI SYSTEM/IC301)



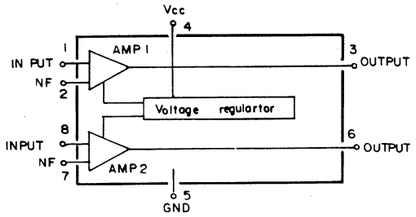
LA1135(AM TUNER SYSTEM/IC 201)



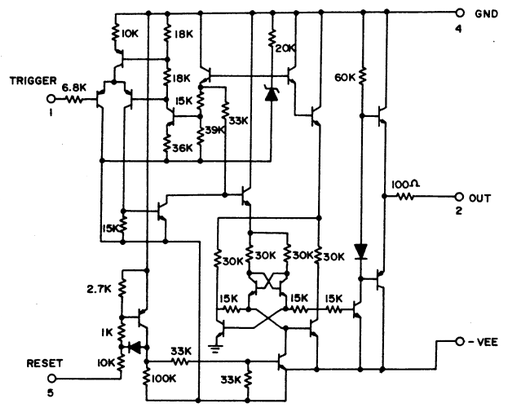
BA336(BLANK SECTION DECTOR/IC304)



LA3161(PRE AMPLIFIER/IC303)

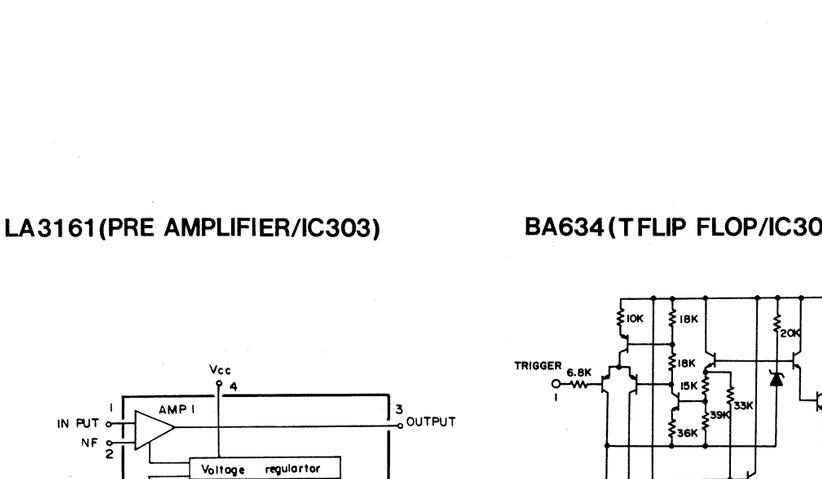


BA634(TFLIP FLOP/IC305)

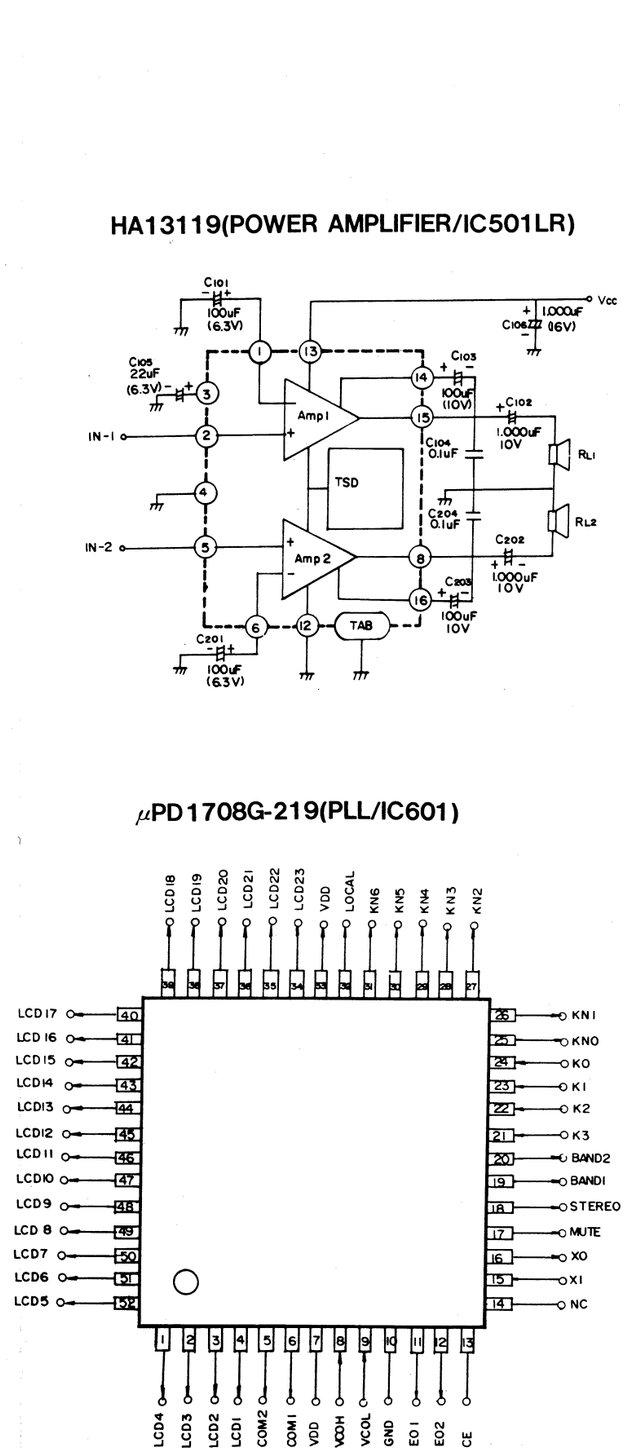


HA13119(POWER AMPLIFIER/IC501LR)

TC9130(FLIP FLOP/IC401)

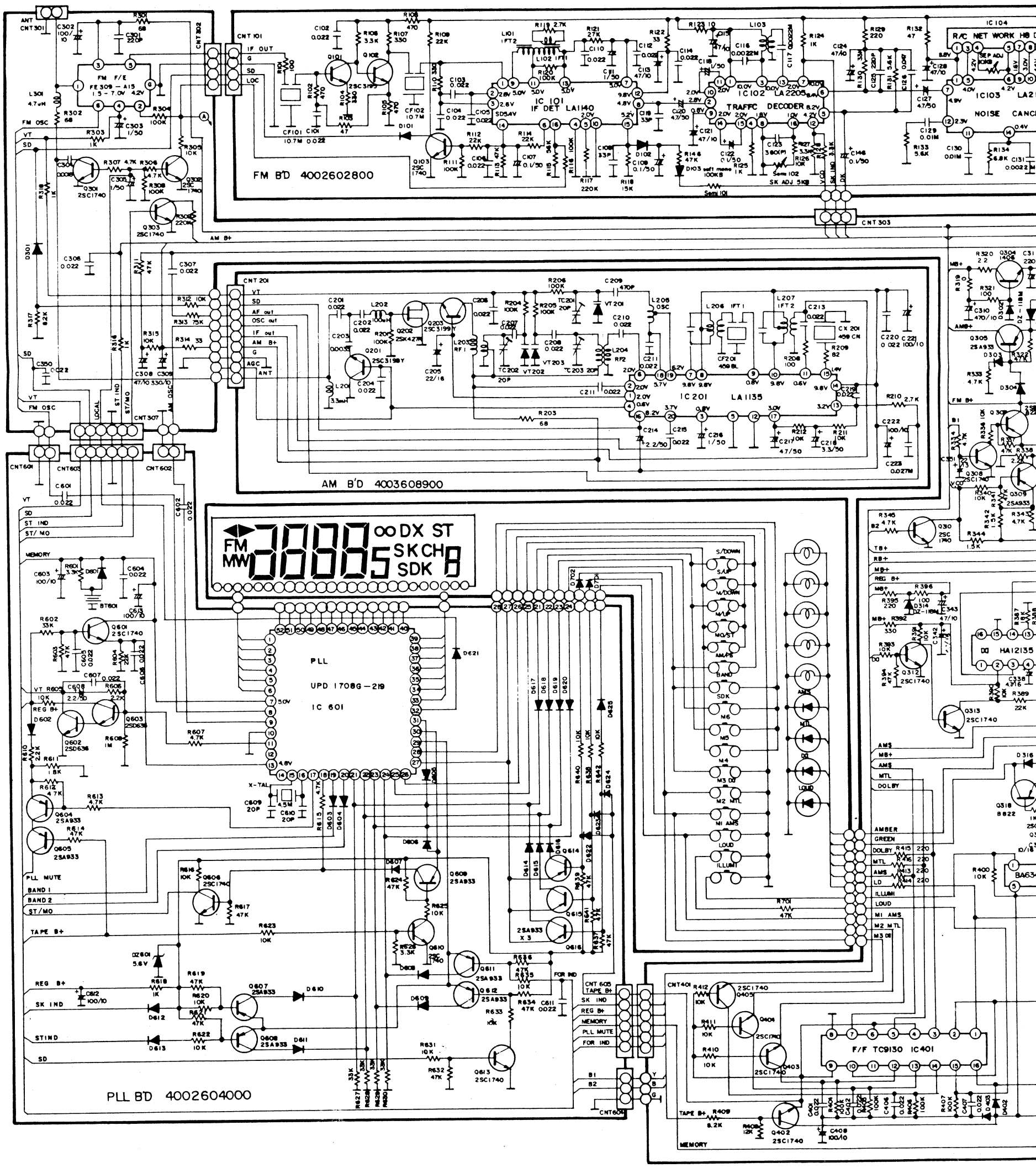


μPD1708G-219(PLL/IC601)



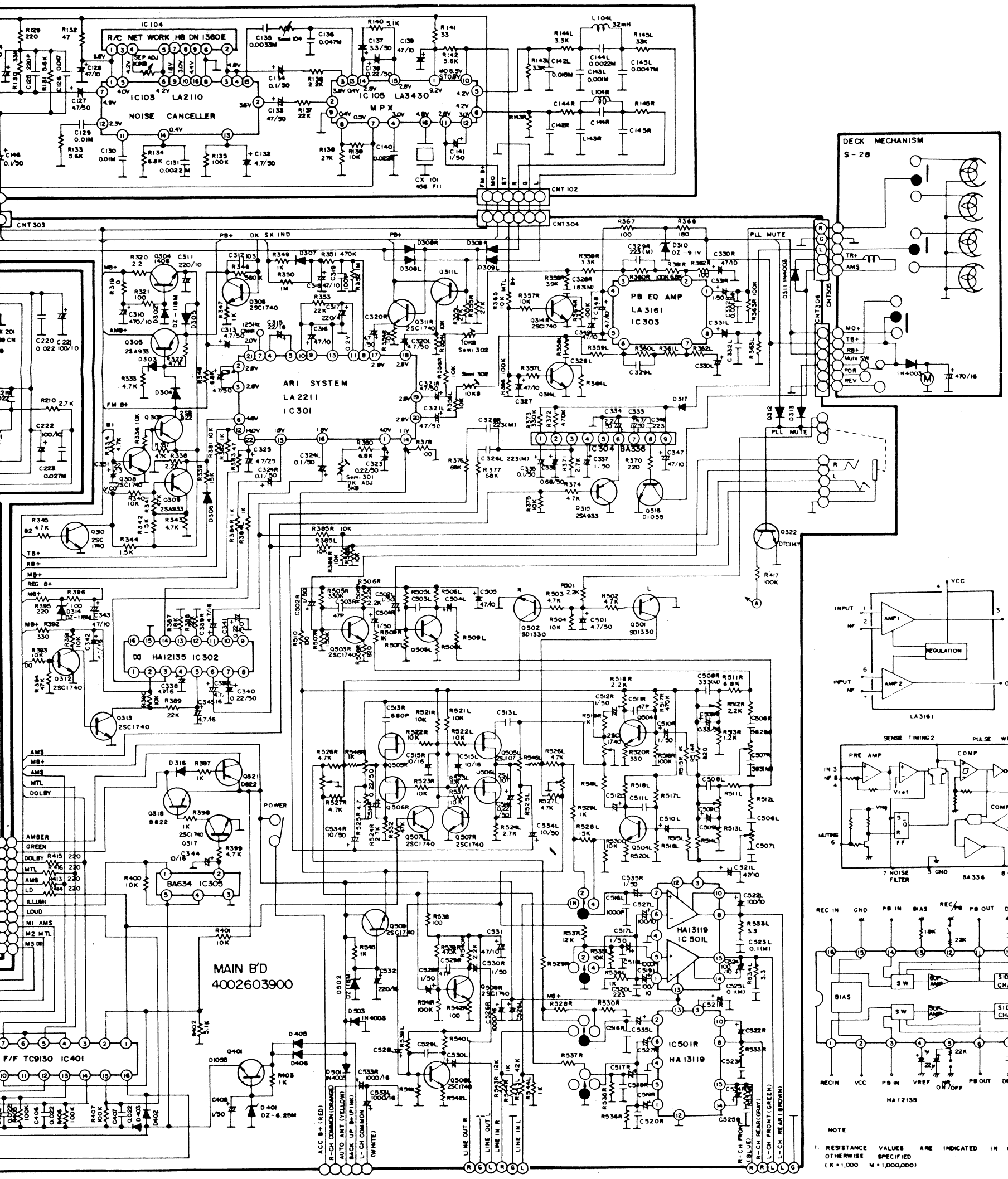
Schematic Diagra

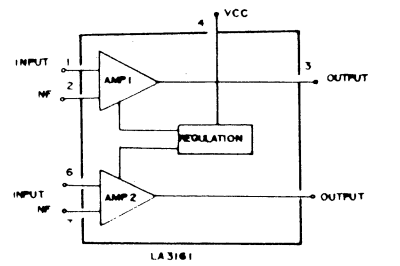
XR1502MW/FM

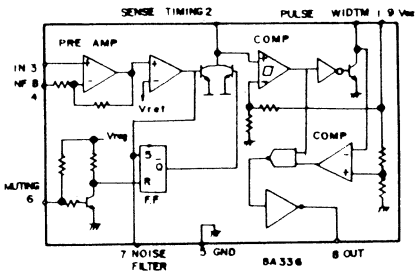


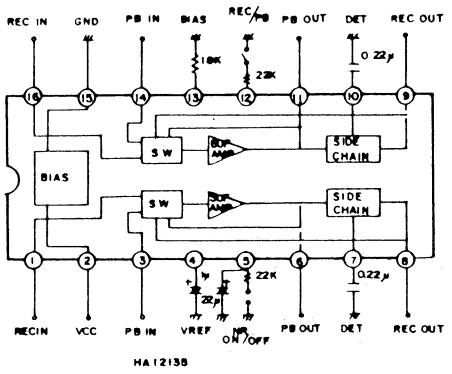
hematic Diagram

XR1502MW/FM









NOTE

1. RESISTANCE VALUES ARE INDICATED IN OHMS UNLESS OTHERWISE SPECIFIED (K=1,000 M=1,000,000)
2. CAPACITANCE VALUES ARE SHOWN IN MICROFARADS UNLESS OTHERWISE NOTED (P=MICRO — MICROFARADS)
3. COMPONENT VALUES ARE SUBJECT TO CHANGE WITHOUT NOTICES
4. ALL VOLTAGES ARE REFERENCED TO GROUND UNDER THE FOLLOWING CONDITIONS
5. ALL diodes are IN4148 unless otherwise noted. DC NO SIGNAL EXCEPT WHERE INDICATED